

VOL. 77

NO. 8

Textile

bulletin

AUGUST, 1951

Those 'heavenly carpets
by Lees' 39
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Improving dryer operation
by air recirculation . . 62

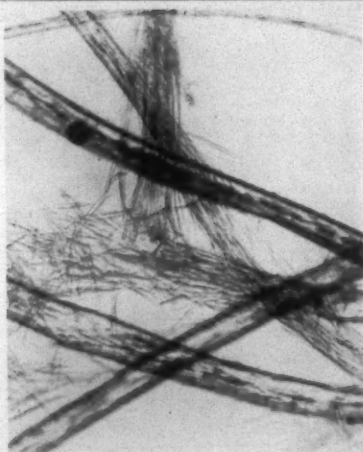
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A MICROSCOPE SHOWS THE DIFFERENCE



ORDINARY SLASHER CLOTH

The untreated wool fibre has disintegrated and has caused the slasher fabric to fail, resulting in down time, dusty yarn and off-quality dressing — problems that can be eliminated in YOUR slasher room once and for all by standardizing on ORR Slasher Cloth.

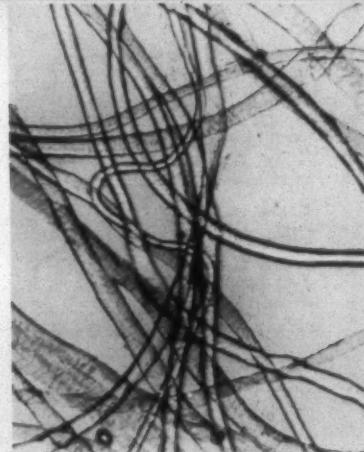
— between —

ORR

Chemically Treated
and untreated

SLASHER CLOTH

after similar runs



ORR SLASHER CLOTH

Note the difference in ORR chemically treated Slasher Cloth after similar use. This cloth *resists* bacteria and steam degradation, holds its width, dresses the yarn properly, starts fast, lasts long, maintains level production at all times.



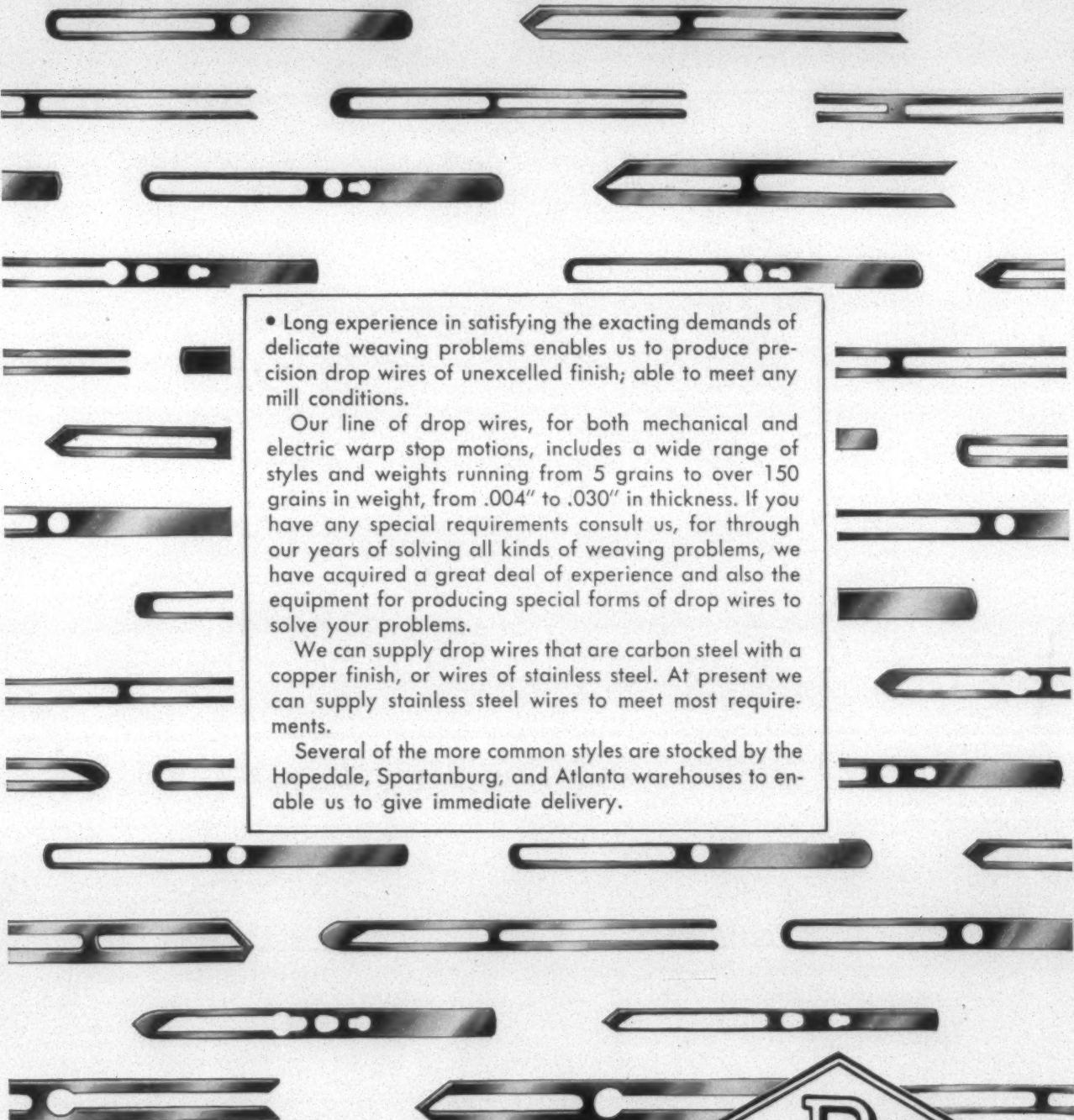
More And More Southern Mills Are Changing To ORR Slasher Cloth

THE ORR FELT & BLOCKET CO. PIQUA, OHIO

Distributed by

OLIVER D. LANDIS, INC., 115 Commerce Bldg., CHARLOTTE 2, N. C.

DRAPER DROP WIRES



• Long experience in satisfying the exacting demands of delicate weaving problems enables us to produce precision drop wires of unexcelled finish; able to meet any mill conditions.

Our line of drop wires, for both mechanical and electric warp stop motions, includes a wide range of styles and weights running from 5 grains to over 150 grains in weight, from .004" to .030" in thickness. If you have any special requirements consult us, for through our years of solving all kinds of weaving problems, we have acquired a great deal of experience and also the equipment for producing special forms of drop wires to solve your problems.

We can supply drop wires that are carbon steel with a copper finish, or wires of stainless steel. At present we can supply stainless steel wires to meet most requirements.

Several of the more common styles are stocked by the Hopedale, Spartanburg, and Atlanta warehouses to enable us to give immediate delivery.



D

DRAPER CORPORATION

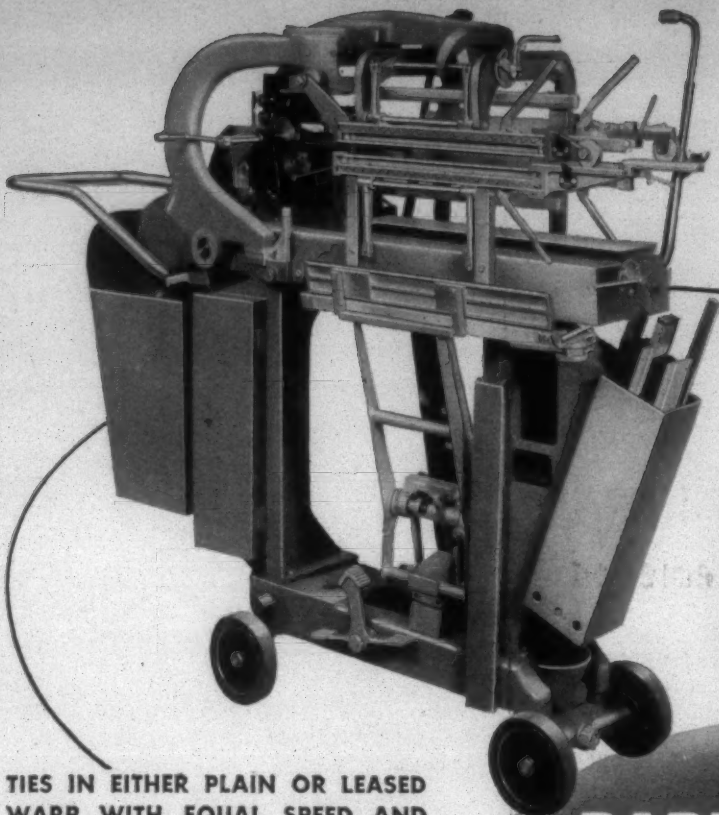
KA ELECTRICAL WARP STOP DIVISION • PAWTUCKET RHODE ISLAND



COMMERCIAL FACTORS CORPORATION

TWO PARK AVENUE, NEW YORK, 16

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T. HOLT HAYWOOD, WINSTON-SALEM, NORTH CAROLINA

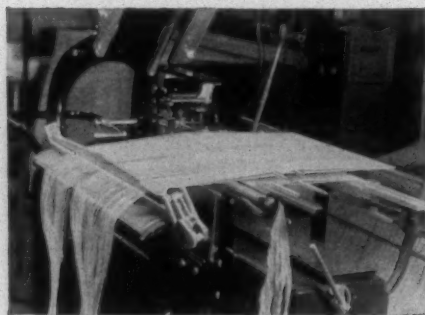


*Reduce Costs!
Increase Production!
Improve Products!*

TIES IN EITHER PLAIN OR LEASED
WARP WITH EQUAL SPEED AND
EFFICIENCY



Model "LL" machine set up for
tying in a plain cotton warp.



The same machine as above, now
set up for a leased cotton warp.

BARBER-COLMAN *Portable* WARP TYING MACHINE

A Barber-Colman PORTABLE Warp Tying Machine can be a *very profitable* investment for you. This machine offers a fast and accurate means for tying-in new warp *at the loom*. It can be handled in confined and hard-to-reach places and in loom alleys as narrow as 12". Overall production capacity averages 3500 to 4500 ends per hour, higher on high sley warps. Models are available to handle cotton, wool, worsted, silk, or synthetics (including monofilaments) and plain warps or leased warps or both. Tying is accurate and uniform and so much more efficient than common hand methods that the machine will pay for itself quickly in cost savings *even when not in constant use*.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY
ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A.

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MANCHESTER, ENGLAND

MUNICH, GERMANY

CORROSION CRIPPLES— MORE WAYS THAN ONE

Volatility of corrosion is not as
what appears to be corrosion.

Corrosion takes its toll in more ways than one—it
not only cripples industrial equipment—erodes steel
tanks while plants are shut down for repairs—and causes
loss of value—corrosion problems through contamination.

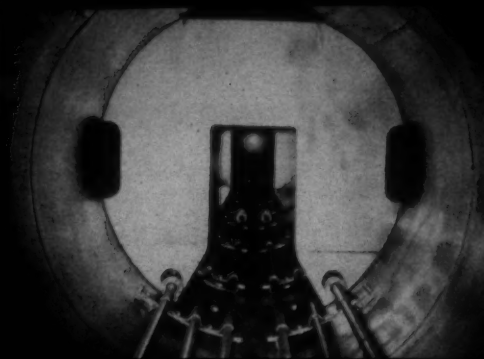
Every industry suffers from corrosion in some
form, yet much of this waste can be avoided by taking
these steps:

1. Check manufacturing equipment, storage tanks,
and other lines exposed to corrosive forces,
with special attention.
2. Arrange to protect lines with AMERCOAT —
the corrosion resistant coatings, each built to
combat specific industrial corrosion problems.

Manufacturers in nearly every industry have found
that it pays to protect — protect with AMERCOAT.

**AMERCOAT
CORPORATION**

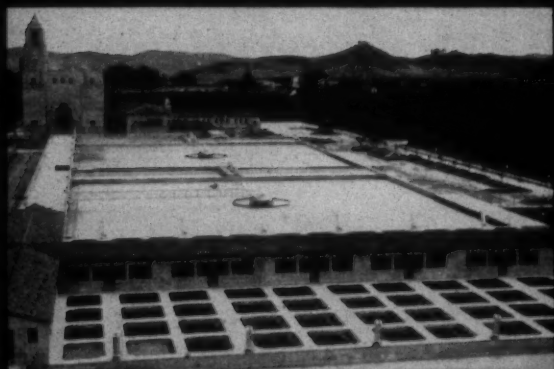
FOLLOW THE LINE
OF *most* RESISTANCE



CHEMICAL PLANTS — Caustic Soda Tank

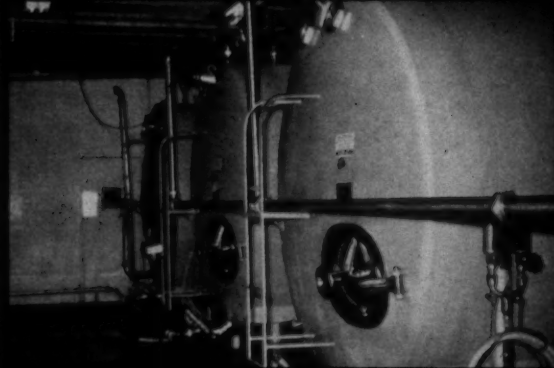


PETROLEUM REFINING — Columns and Piping



WATER SOFTENING PLANT

Photo Courtesy Metropolitan Water District of Southern California



FOOD PROCESSING — Milk Storage Tanks



TEXTILE MILLS — Dyeing and Finishing



Which is the Winning CLOTHES-HORSE?

*...in this Race that
begins in the Weaveroom!*

When the public picks a winner in the hell-for-leather Steeplechase of today's clothing markets, chances are they've picked a fabric woven on C&K's convertible, versatile Call Box Looms.

In fact, here's something worth passing along to the clothing manufacturer, to the retailer, and then to the customer:

THIS FABRIC WOVEN IN THE USA...ON LOOMS BY C&K

For the loom is the establisher of fabric value—the heavy weapon of competition. And modern C&K Call Box Looms are “on the beam” in every factor that makes for market-winning promotions that can be built only on high quality and low cost ...top volume of flawless fabrics...amazing versatility, to get the best results from new fibres, fashions and constructions...and low operating costs, controlled through the consistent use of Certified C&K Loom Parts. And speaking of C&K versatility, are you making *full* use of it? You might come up with another winner, yourself!



This “Invisible Trademark” Stands Back of the Trademarks of the World's Finest Woven Fabrics

Crompton & Knowles LOOM WORKS

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Philadelphia, Pa. • Charlotte, N. C. • Allentown, Pa. • Crompton & Knowles Jacquard & Supply Co., Pawtucket, R. I.



The Tail that Wags the Dog

Keep this thought in mind. On the average painting job, labor represents 80% of your total cost. The paint itself represents only 20%. But the paint is actually the tail that wags the dog. It's what your painter can or cannot do with a paint that cuts down or runs up your painting costs.

That is why we suggest a simple test that shows how Barreled Sunlight really cuts painting costs. Just take a gallon of Barreled Sunlight and a gallon of any other paint and thin each according to directions on the cans. First thing you'll notice is that Barreled Sunlight gives you more paint ready for the brush.

But of even greater importance, see what your maintenance painter can do with each *on the wall*. You'll see that in any given period of time he can get more yardage — can work much faster and easier . . . with Barreled Sunlight. And what's more, you'll notice that

after drying, Barreled Sunlight hides better . . . looks brighter, cleaner . . . even after just one coat.

Project these evident savings . . . savings in the amount of paint you buy and savings in man hours to put it on . . . in terms of a complete job. You'll agree that Barreled Sunlight . . . famous for over 50 years for its quality and proven economy . . . is the paint to use, *always*.

BARRELED SUNLIGHT PAINT COMPANY

5-H Dudley St., Providence, R. I.

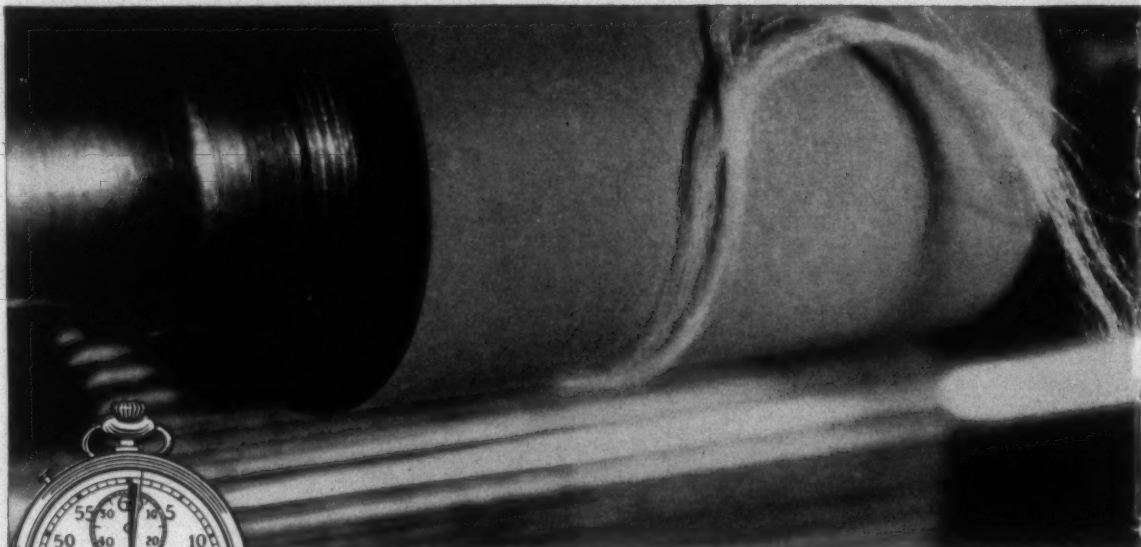


Barreled Sunlight *Paints*

In whitest white or clean, clear, pleasing colors,
there's a Barreled Sunlight Paint for every job

IT ALWAYS COSTS MORE NOT TO PAINT!

A Stop Watch



WHEN AN END BREAKS, will the cover let the yarn run free *long enough* for it to go down on the scavenger roll? Tests in Armstrong's laboratories, confirmed by mill experience, show that many covers will not. Many covers lap up within the first split second before the yarn can get to the scavenger roll, in some instances too fast to time accurately.



THE LONGEST time any cover lets the yarn run free is consistently recorded by Armstrong's Accotex® Cots. In thousands of tests they let the yarn run free long enough for it to go down on the scavenger roll . . . in many cases it runs free indefinitely. Diagrams and pictures at right show why Armstrong's Accotex Cots have such high lap resistance.

shows which cover resists lapping best

IN measuring the lap resistance of a roll cover, the critical question is this: Will the cover let a broken end run free *long enough* to go down onto the scavenger roll?

In cot development work, it's important to get the answer to that question fast. That's why the textile section of Armstrong's Research Laboratory developed the stop watch test. This test gives them the comparative lap resistance of different cot compounds in minutes instead of months. At the same time, experience has proved that a cover that shows up well on this test also demonstrates superior lap resistance when it's installed in a mill.

Here's how our research workers make the stop watch test. First, they put a cot on a frame section from which the scavenger roll and clearer board have been removed. Next, to make the test even more rigid, they speed up the frame many times faster than normal. Then they break an end and measure with a stop watch how long the cot will let the end run free.

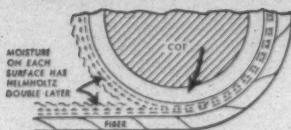
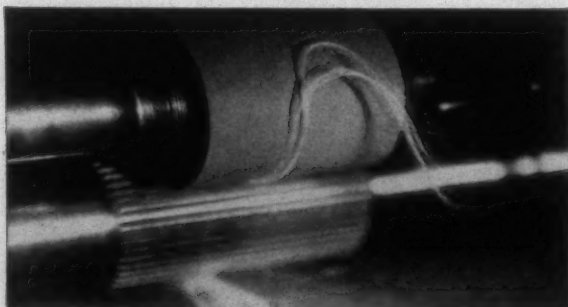
The longer the end runs free, clearly, the better

chance it would have of going down on the scavenger roll in the mill . . . the more lap resistant the cover. In thousands of these tests against the stop watch, Armstrong's Accotex Covers consistently prove to have more lap resistance than any other cover made today.

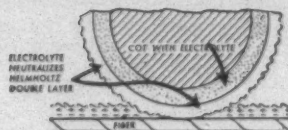
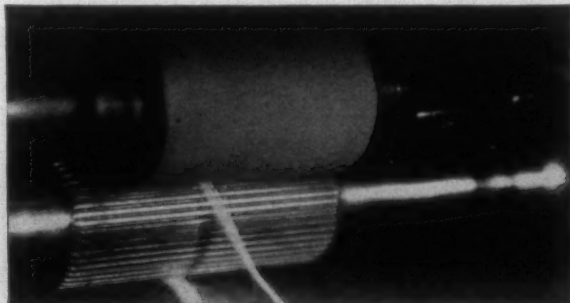
The secret of this high lap resistance is in the patented formula of the Accotex Cover. Every Accotex Cover contains electrolytes . . . a certain special ingredient that eliminates one of the principal causes of lapping, the natural attraction between cot and fiber.

Because no single cover formulation is best for all spinning conditions, Armstrong offers you a complete line of straight synthetic, and cork-and-synthetic Accotex Covers.

Ask your Armstrong representative to suggest the right Accotex Cover for your mill or work. Call him today for complete information or write Armstrong Cork Company, Textile Products Department, 8208 Arch Street, Lancaster, Pennsylvania. Available for export.



THIS COT LAPS: Moisture layers on fiber and cot contain electric charges that attract fiber to cot. When pressed together, the two moisture layers have effect of adhering fibers to cot.



THIS COT RESISTS LAPPING: Certain electrolytes put in patented Accotex Covers neutralize electric charges in moisture layer on cot. This cancels out the basic attraction of fiber to the cot.

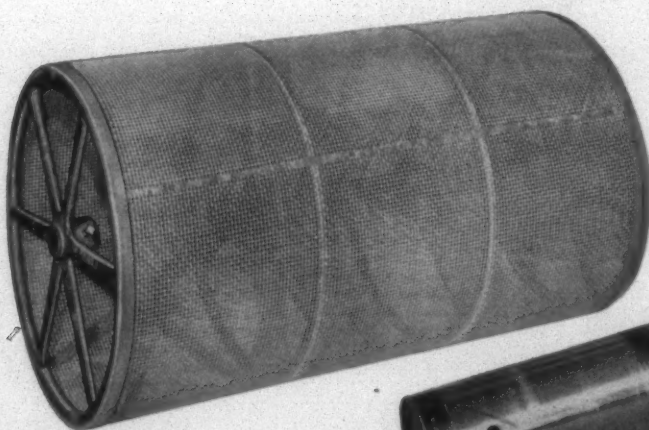
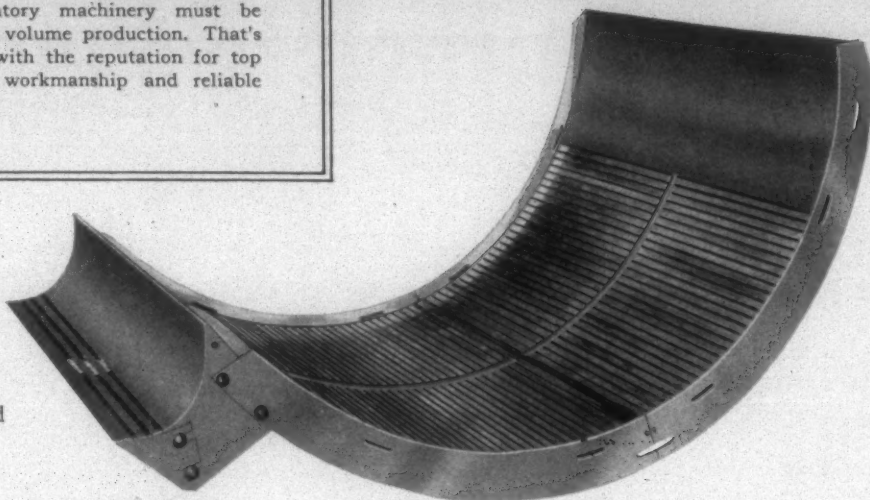
ARMSTRONG'S ACCOTEX COTS



MORE PRODUCTION AT LOWER COSTS *with* **GASTONIA** TEXTILE SHEET METAL PARTS

The quality and the profit of your end product starts at the beginning—where preparatory machinery must be geared for efficient, economical volume production. That's our job—a job for specialists with the reputation for top quality products, painstaking workmanship and reliable service.

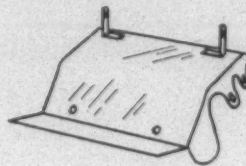
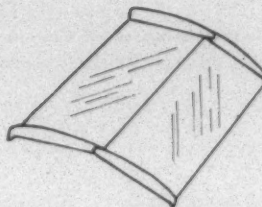
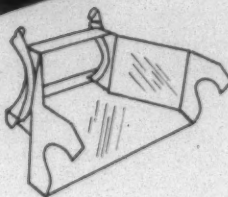
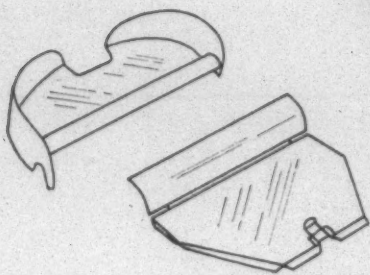
Standard type rib or perforated Card Screens are precision built on special jigs. Every screen is inspected and double checked for accuracy and tolerance.



Picker, Condenser and Waste Machine Screens of maximum strength and durability are constructed of the best materials available.



New and rebuilt Cylinders are dynamically balanced to reduce vibration to an absolute minimum.



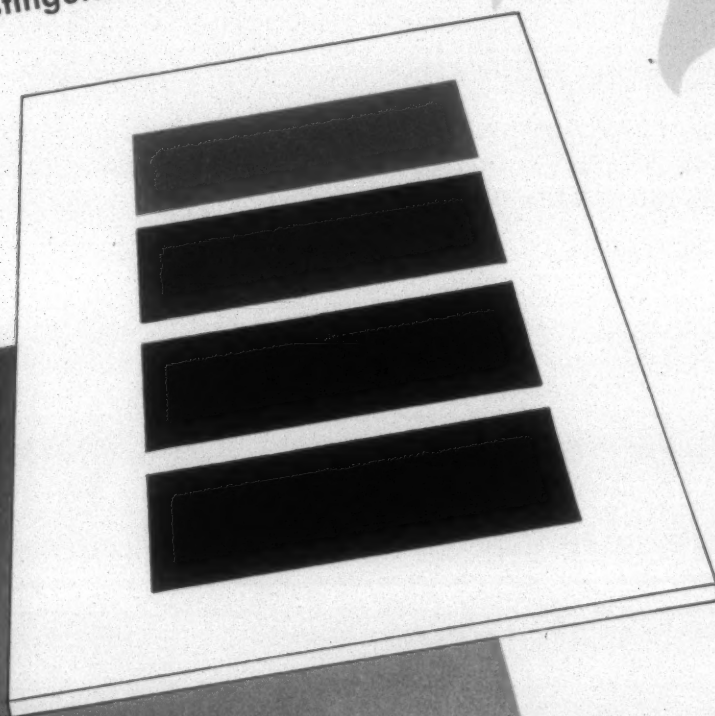
*Years of practical experience
—the finest of raw materials
—and precision machinery in
the hands of skilled workmen
go into every product.*

GASTONIA TEXTILE SHEET METAL WORKS, Inc.
GASTONIA, NORTH CAROLINA
A SHEET METAL WORKS SERVING TEXTILE MILLS

Shade with a place in the sun

SOLANTINE RED 6BLL

Direct cotton and rayon color
distinguished for its light fastness



- All the economy and ease of application inherent in direct dyes plus excellent Light Fastness.
- Does not stain acetate effect threads.
- Excellent value for use on dry cleanable outerwear, sports dresses, etc.

For shade card, write, wire or phone our nearest office.

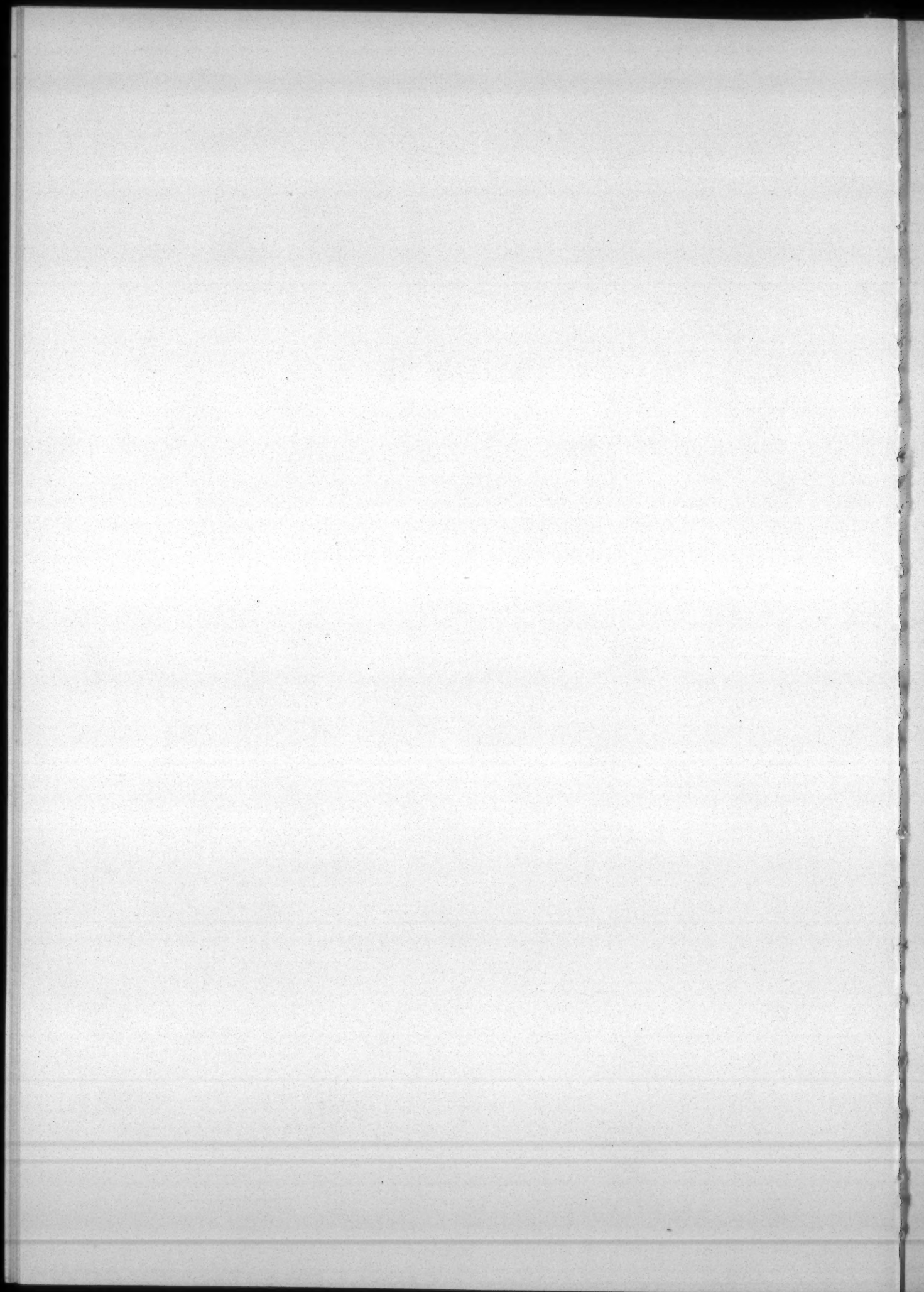
NATIONAL ANILINE DIVISION

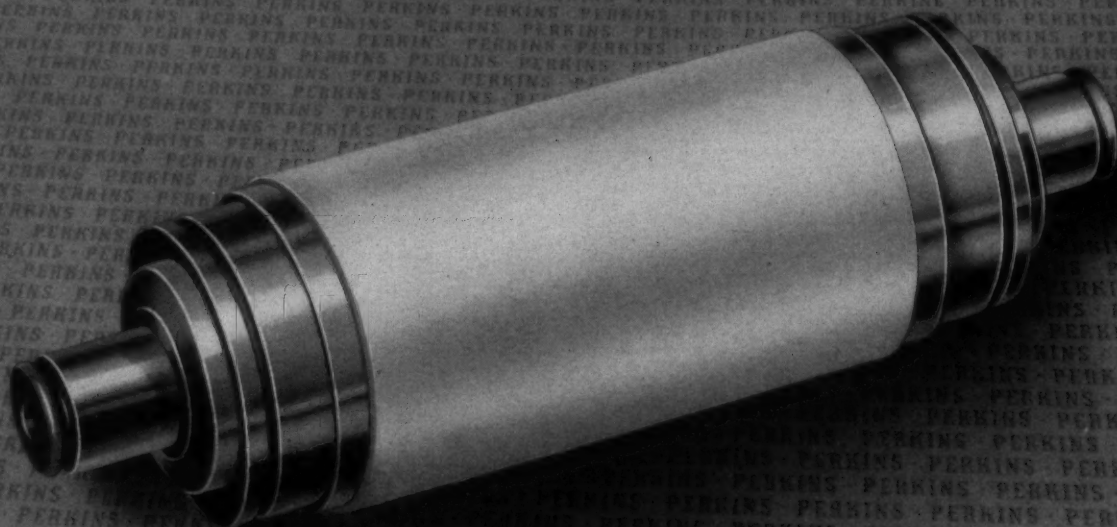
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Perkins Calender Rolls—the natural result of the longest and broadest experience in the industry—give quality that is definitely reflected in your product. Perkins service includes refills of any make of calender rolls.

B. F. PERKINS & SON, Inc.

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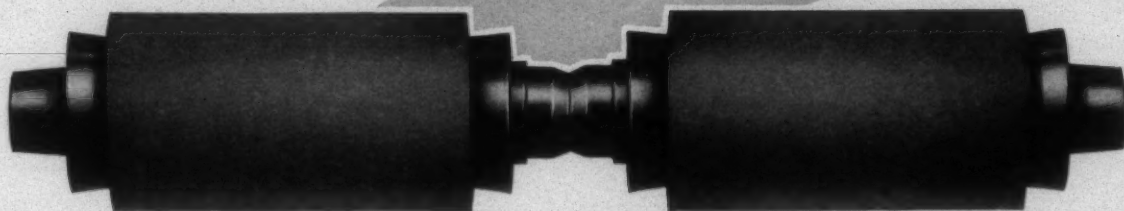
LARGEST MANUFACTURERS OF CALENDER ROLLS IN THE WORLD

WHICH S-L-T TOP ROLL COST-CUTTING FEATURE WOULD HELP YOUR MILL MOST?

- ★ NO WEEKLY OILING
- ★ NO SPOILED YARN
- ★ NO ROLL PICKING
- ★ NO WASTED OIL

SACO-LOWELL-TORRINGTON

S-L-T NEEDLE BEARING **TOP ROLL**
FOR ROVING AND SPINNING



Mills using **S-L-T Top Rolls** may not all agree on the one money-and-time saving feature that benefits them most, but they all do agree that these modern, pre-lubricated top rolls bring them important over-all savings.

S-L-T Top Rolls eliminate weekly oiling . . . lubrication is needed only at overhaul periods. They do away with costly yarn spoilage from black oil. Because of inherent cleanliness, roll picking is practically eliminated. No oil is wasted. Wear due to motion is non-existent, because of the specially designed Needle Bearings. These are just a few of the 18 advantages **S-L-T Top Rolls** offer to mills that are seeking *better yarns at lower cost*.

Write for Folder No. 2. It gives complete data on every S-L-T feature. Or consult our nearest Sales Office regarding an engineering survey of your top roll problems.

S-L-T- TOP ROLLS are manufactured by **THE TORRINGTON COMPANY**, Torrington, Conn., and are available exclusively through

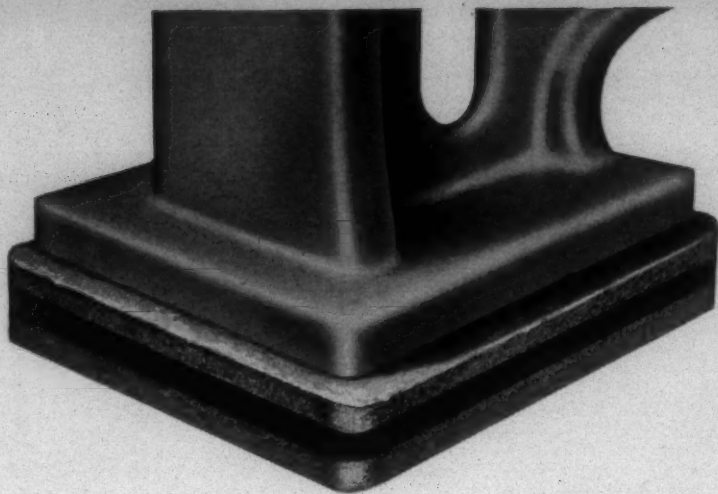


SACO-LOWELL

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Shops at BIDDEFORD, MAINE and SANFORD, N. C.

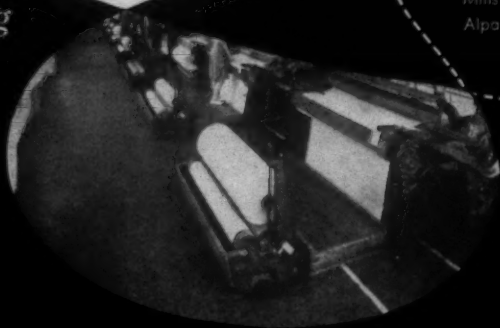
SALES OFFICES: CHARLOTTE • GREENVILLE • ATLANTA



In South America, too, they cheer:

"No Floor Drilling"

*When You
Mount
Machinery
on*



Modern preparatory machinery
and looms mounted on
UNISORB at Buenos Aires
Mills of Fabrica Argentina de
Alpargatas.



®

*Get
the
Facts*

Like so many, many other progressive mills — both here and abroad — the huge and up-to-date Fabrica Argentina de Alpargatas, with mills in Brazil, Uruguay and Argentina, mounts its modern preparatory machinery and looms the modern way . . . on UNISORB.

Old-fashioned, destructive floor drilling is gone — for good. Transmitted machine vibration and noise is eliminated by as much as 60-85%.

Result: Floors saved, no more unsightly pitting and scarring. And because of the sharply decreased vibration, machines and buildings last longer. What's more, with noise factor substantially reduced, worker efficiency is improved — and so is morale.

*ALL
The
Facts
on
Unisorb
TODAY*

The **FELTERS COMPANY**

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Distributors in Principal Cities Throughout the World

MODERNIZE YOUR PICKERS WITH

SACO-LOWELL TRI-CONTROL

Now available for current and past models of SACO-LOWELL PICKERS . . . offering 3 important control advantages:

- INCREASED FIBER CONTROL
- EFFICIENT WASTE CONTROL
- IMPROVED LAP EVENNESS

These developments are in addition to our other "FIRSTS"

Automatic Distributor System
Overflow Reserve Box

No. 7 Evener

Blending Reserve

Tri-Control will improve the character of your laps, both in cleanliness and evenness, so essential for the spinning of premium quality yarn at high production with maximum efficiency.

TRI-CONTROL is fully described in this new brochure. Send for it.

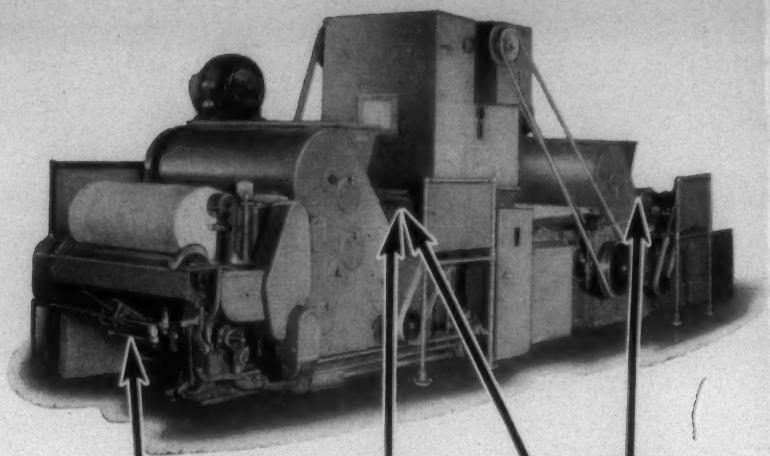


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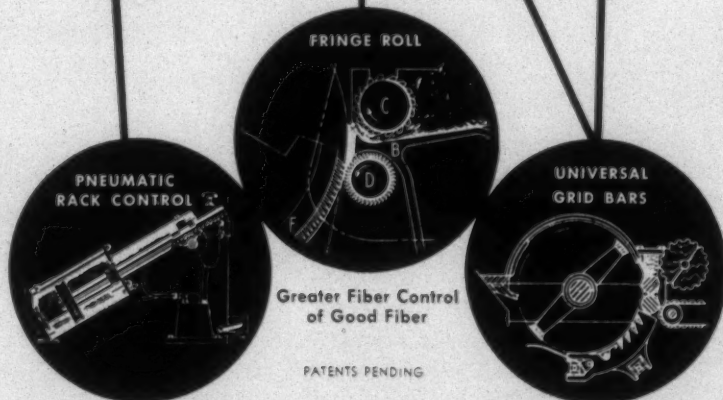
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THREE CONTROL POINTS TO INCREASE PICKER EFFICIENCY



Control of Lap Evenness

Accurate Control of Waste

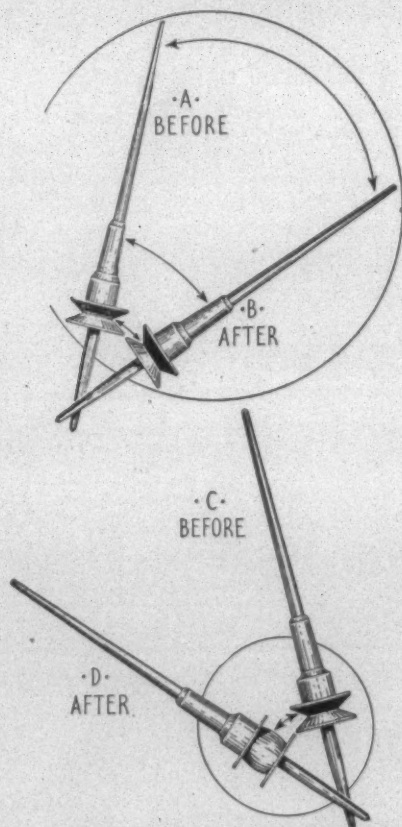


AS GOOD as new!

worn spindles reconditioned by master technicians!

It takes what GOSSETT-MASON has plenty of . . . know-how, equipment and skilled technicians . . . to repair and recondition spindles. The cost is only a fraction of complete spindle replacement. Give us a call. We will gladly and promptly give you a cost estimate.

look what we do to spindles!



Sketch A. This spindle is badly worn. Note the wornout top, acorn and drive . . . Now look at spindle (B) . . . the same spindle reconditioned by GOSSETT-MASON master technicians.

Sketch B. The worn top has been cut off and a new piece of spindle steel butt-welded onto spindle blade and the top ground to specified size. We also build up the worn top with hard chrome plate and grind the top to size specified. After retopping blade, if necessary we put on a new whorl (made by GOSSETT-MASON).

Sketch C. This is a conventional band driven spindle. Mill specifications called for a tape driven spindle so, GOSSETT-MASON technicians converted at a fraction of the cost of complete spindle replacement.

Sketch D. We removed the band driven whorl and put on a new GOSSETT-MASON tape driven whorl. Then we arranged the band driven spindle base so that it can be used with tape driven spindle. Takes know-how and equipment plus skilled technicians.

PLEASE NOTE: We manufacture all types of new spindles and bases. Write or telephone us for full particulars and a cost estimate.

GOSSETT-MASON
Incorporated

B. W. GOSSETT, President

E. C. MASON, Sales Manager

D. W. SMITH, N. C.-Va. Representative

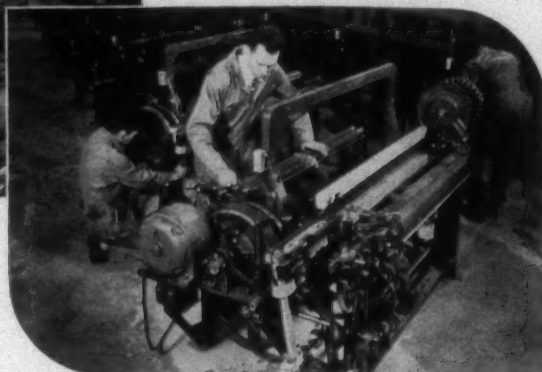
GASTONIA • NORTH CAROLINA

WEST FRANKLIN AVENUE • PHONE 5-4661 or 5-0142



LEFT: Plant layout permits assembly-line technique in Wilson loom rebuilding plant.

BELOW: Plant Superintendent checks every Wilson-rebuilt loom for performance before delivery.



a NEW IDEA in LOOM REBUILDING

Wilson Establishes Streamlined Loom Modernization Plant

Completed in the Spring of 1951, the new Emil V. Wilson Co. loom modernization plant at 1210 New Buncombe Rd. in Greenville, S. C., is unique in its field. The new plant, housed in a steel-and-concrete structure, contains 10,000 square feet of floor space, and has 1,500 loom parts bins. Using assembly-line technique, Wilson-trained mechanics can now rebuild, inspect, and ship 60 "like new" looms each week.

Assembly From Loom Frames Plus Rigid Performance Inspection

Looms to be Wilson-rebuilt are first stripped to the frames, and worn or obsolete parts are discarded. Rebuilding is done according to mills' specifications, from an adequate supply of perfect parts, and under the careful supervision of Wilson loom engineers.

A system of gauges and checks is used to determine accurate assembly.

New-Loom Performance From Wilson-Rebuilt Looms

As a final test, each Wilson-rebuilt loom is started and run on the plant floor. Wilson's plant superintendent makes a final part-by-part inspection to see that every part ordered is in place. The smallest details are checked, to assure that Wilson-rebuilt looms will give new-loom performance.

Write, wire or telephone to learn how we can serve your needs in this new loom rebuilding plant.



EMIL V. WILSON CO., INC.

Loom modernization Specialists

1210 NEW BUNCOMBE RD., GREENVILLE, S. C.

The
Textile
Industry's
only plant de-
voted entirely
to rebuilding
Looms.

Telephone
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Bring Those Bobbins Within Easy Reach

Conventional
Position of
upper row

HEIGHT SAVED

The "LOBOY"
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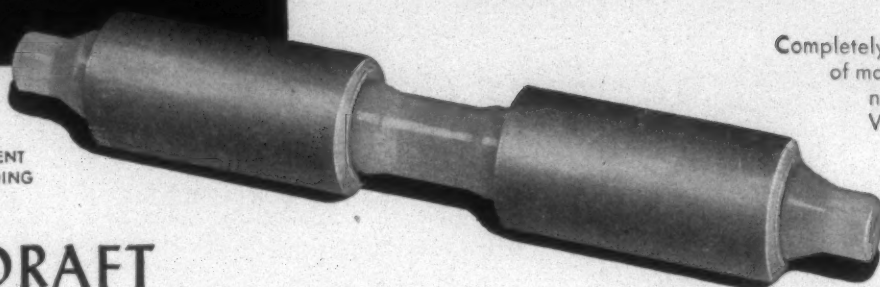


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Rayon Reports

Prepared Monthly by American Viscose Corporation, New York, N. Y.

August, 1951

Beware of Excess Resins, Caution Avisco Technicians

May act like "million razor blades" on fabrics

REPORTS from the field indicate that improper resination of fabrics to impart wrinkle-resistant properties is creating some dissatisfaction with the wearing qualities of certain rayon fabrics, according to Avisco's Converting Relations Department.

To cite two extreme examples, the department was recently asked to test a pair of pedal pushers which had lasted one day, and a pair of slacks which had worn through during a drive to Florida. Both garments were made of good fabrics. The fault was found to be improper application of resins, which had ended as deposits on the surface instead of impregnating the fibers. The result might be compared to the addition to the surface of a million little razor blades that sharply reduce resistance to abrasion.

Boardy Finishes

This situation is a recent development.

It is felt that one of the major reasons is the demand for stiff, boardy finishes on the part of some cutters. The Stoll Wear Tester shows clearly what this type of finish can lead to. In one instance, one resinated fabric wore through after only 169 flex cycles, yet when properly finished that same fabric yielded more than 2,300 flex cycles. In another case the lining of a jacket broke down after only 63 flex cycles. The same fabric, properly finished, stood up under 903.

Correct Application

The minimum resin necessary to impart maximum wrinkle-resistance is all that should be used. Some fabrics require less than 7 per cent, others may need as much as 14 per cent. The right amount, correctly applied and cured, will lose little wrinkle-resistance in dry cleaning or the standard wash.

The pH and the temperature of the

bath are of vital importance in applying resin finishes. Avisco has found that the pH should not be lower than 6.5 nor higher than 7. 90° F. is the maximum bath temperature recommended. Drying temperature should not exceed 280° F.

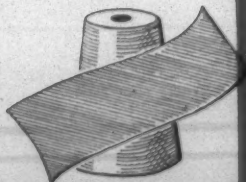
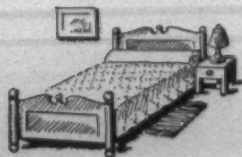
Converters and finishers who are not sure whether a particular rayon fabric has been properly resinated are invited to send a sample to Avisco's Converting Relations Department, which will be glad to test it, free of charge. Address: American Viscose Corporation, Converting Relations Department, 350 Fifth Avenue, New York 1, N. Y.

RAYON 20 YEARS AGO



NEW YORK, August, 1931—Rayon fabrics are used extensively in the decoration of the new liner, S. S. President Hoover.

NEW YORK, August, 1931—The newly introduced rayon warp bedspreads have been well received by the trade and are in active demand.



NEW YORK, August, 1931—"Dulcet" is the name of the new dull lustre yarn produced by the Viscose Company.

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Coercive Gesture

THE proposal of Emil Rieve, president of the Textile Workers Union, that labor boycott the government's mobilization agencies until Congress enacts a new defense production bill may have been only a thoughtless gesture. Fortunately the United Labor Policy Committee did not adopt the scheme. It is nevertheless disquieting to have a body representing 15,000,000 organized wage earners even consider a proposal to coerce Congress into enactment of legislation in which they are interested. We hope that the committee will have the good judgment to keep the proposal on the shelf or, better still, to consign it to the ash can.

In its campaign to arouse public sentiment in favor of a strong controls program, the United Labor Policy Committee has much support and many allies. The backbone of Congress needs to be stiffened. Because of their extensive membership, the unions are in an especially favorable position to do the stiffening. But let their influence be exerted in open and democratic fashion. Talk of coercion would give stubborn legislators an excellent excuse to scuttle the controls program as a means of resisting intimidation.—*Washington (D. C.) Post*.

A Union Is Wrong

STARTLING as the news seems, it does now appear that some of organized labor's practices are too much for the National Labor Relations Board to stomach. In this particular instance the board has upheld an employer who discharged nine employees because they circulated handbills attacking the quality of his product.

Even as it is the essence of this decision—which to fair-minded persons seems eminently correct—is somewhat impaired by the fact that it was not unanimous. One member of the board voted against it and another refused to vote at all.

A third dissenter was the trial examiner, whose recommendation was overruled by the board, but who con-

tended that the discharges were illegal under the Taft-Hartley Act's injunction against employer interference with union activity.

He is a bigoted man indeed—and certainly should not be connected with enforcement of the labor laws—who can approve a campaign by a union to induce the public to ruin an employer's business. Nor are union members very bright in adopting that course. They may win a strike that way but when it is over where will their jobs be?—*Gastonia (N. C.) Gazette*.

Hope He's Right

IT may be, as Charles C. Hertwig of the American Cotton Manufacturers Institute told the Senate Finance Committee, that the federal government will collect much more in taxes this year than it expects.

But that it will collect enough to make the pending increase in taxes unnecessary is open to question. At least it would be hazardous to depend on it, because, if taxes do not reach the heights expected by Mr. Hertwig, we would be in a jam in paying for our military program.

Technically Mr. Hertwig had the better of the argument, because he took the figures of the President's Council of Economic Advisers and threw them right back in the council's face.

In its July report the council predicted that the gross national product, which was \$280 billion in 1950, had reached the rate of \$314 billion in the first quarter of 1951. If the rate continues for the rest of the year, Mr. Hertwig told the Senate committee, the government will collect correspondingly larger taxes on it, and so the Treasury estimates of revenue will be exceeded by several billions.

We have had that experience in North Carolina, where revenue has been consistently larger than estimates, because both incomes and prices were higher as a result of inflation, and as a result both income and sales taxes brought more money into the state treasury.

Mr. Hertwig has logic on his side, therefore, in assuming that the federal

government will likewise take in more taxes than it expects. He fortified this argument by citing the surplus of \$3.5 billion on June 30, when a deficit of \$2.7 billion was expected.

He may be right, and every taxpayer will have a pleasant surprise if he is, but counting chickens before they are hatched has never been a wise habit.—*Charlotte (N. C.) Observer*.

Southern Woolens

THREE or four decades ago the cotton textile industry began to stream South from New England. Now, reports the *New York Herald Tribune*, it is the turn of the woolen and worsted industry, which is "pulling out of New England and resettling itself in the South, if the recent moves of some of the major woolen and worsted producers are any indications."

There are a good many "indications." Recently the American Woolen Co., the nation's largest, purchased a plant near Raleigh together with a



A BATTERY FILLER FOR DUNDEE MILLS AT GRIFFIN, GA., Mrs. Wynne Maderias, was chosen as Cotton Queen of the Spalding County Centennial Celebration, and as such won an all-expense trip to Cuba and Nassau, a wrist watch and many other attractive prizes. In the photograph above she is being crowned by Erle Cocke, Jr., American Legion national commander.

Short cut to lower-cost winding . . .

The **WHITIN Automatic Bobbin Loader**

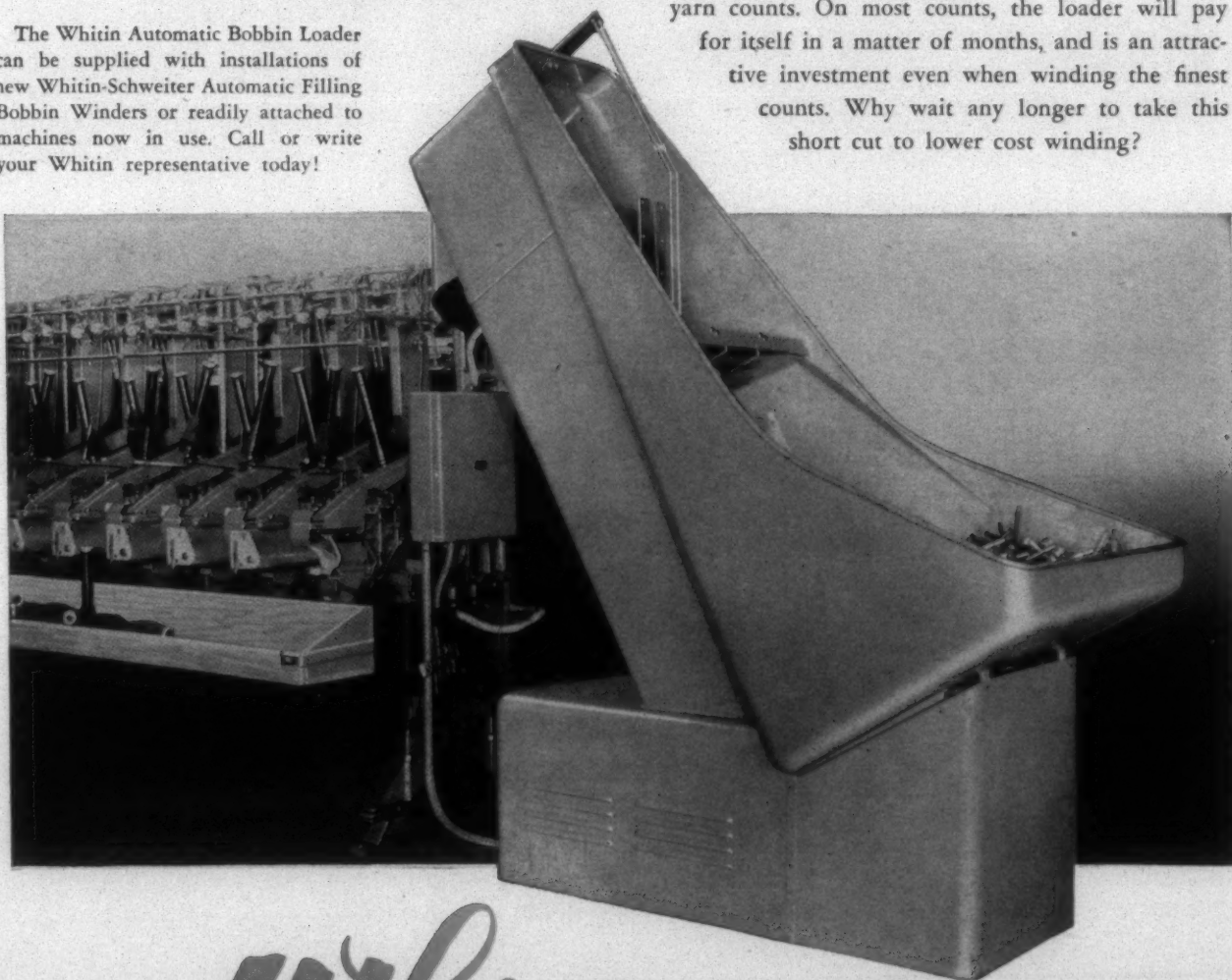
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The economies which can be effected through the use of Whitin-Schweiter Automatic Filling Bobbin Winders are already well known to the textile industry. Today, even greater savings are assured when these winders are equipped with the new Whitin Automatic Bobbin Loader.

This new attachment consists of a large-capacity hopper from which an automatic supply mechanism delivers the empty bobbins to the winder units as they are needed. Various bobbins up to 10-1/8" length can be handled. By thus eliminating the time now required by the operator to refill the bobbin magazines on the winder units, major increases in filling production per operator are effected, with consequent reductions in cost per wound pound of yarn.

A careful analysis of winder tender job loads, with and without the bobbin loader, clearly proves that increases up to 100% in the winder unit assignment are possible on coarse to medium yarn counts. On most counts, the loader will pay for itself in a matter of months, and is an attractive investment even when winding the finest counts. Why wait any longer to take this short cut to lower cost winding?

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WHAT OTHERS ARE SAYING

large site for future development. It is remarkable indeed how much of this migration is ending up in North Carolina. The Raleigh plant of American is "only one of four new woolen mills (Deering-Milliken Co. in Polk County is another) either in the planning stage or under construction in North Carolina."

Why do established industries migrate to the South? Two years ago the Committee of the South of the Na-

tional Planning Association undertook to discover some of the answers. For industry in general there are apparently three major reasons, and the order of their importance may surprise some of us—good markets, available materials, and labor supply.

"Of these three," found the committee, "the market was given as the most important reason for locating in the South . . . But the committee turned up even more surprising information: new plants were usually not after cheap labor; they wanted labor supply

itself and low labor costs—quite a different thing."

For industry in particular—and in this instance the woolen industry—availability of labor was foremost. "In locating their plants in the South, woolen companies sought to get outside the large highly industrialized districts into smaller towns where there are fewer jobs so that textile mill work is comparatively more attractive."

The point is, we believe, that all three of these assets are attractive, sometimes in reverse order of importance, to migrating industry. The woolen industry is beginning to discover that its advantages lie in the very directions pursued by the cotton textile industry after the turn of the century.—*Asheville (N. C.) Citizen.*

Perfumes Of Arabia

IT is encouraging to hear that Russia is talking peace. It is more encouraging to note that at least some of the American viewpoint is being published in Russian papers. What is not known is whether Russia is taking insidious steps to neutralize or use in a harmful way that which she is publishing.

A person with an extremely optimistic outlook would have every opportunity to feel very much encouraged over Russia's change of front. Past experience with Russia, however, makes most realists fear a "wooden horse." Nothing is needed more in this troubled world than a sense of security against war and a feeling that the Communist leaders sincerely desire to be friendly and make peace possible. On the other hand, nothing could be more disastrous than a false security and a hypocritical play being enacted by the Soviet nation in order to allay our fears and cause us to relax in our program to defend ourselves and help protect the other peace-loving democratic nations of the world.

Russia's hands are entirely too bloody for us to put much trust in her present lip service to the cause of peace and friendship. We are very much afraid that there would have to be a complete repudiation of the Communist leadership and an actual change in Russia's form of government for this country to feel assured that an honorable pact of friendship could be developed.

Such horrible deeds have been done and such treachery and deception has been practiced that "all the perfumes

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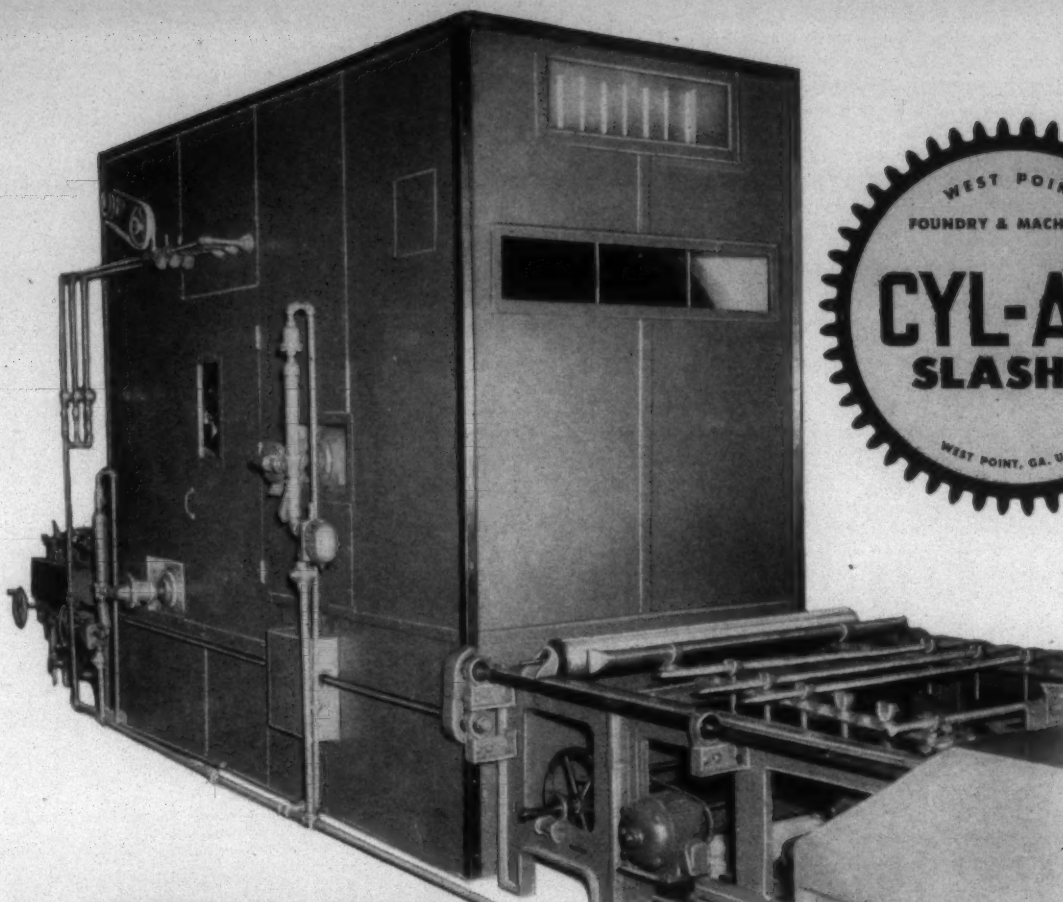
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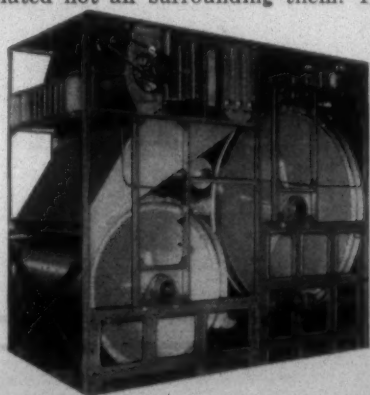
In the completely enclosed CYL-AIR Slasher Dryer, air is heated by three double-row steam coils, then circulated through the wet yarn and around the two cylinders by a triple unit centrifugal blower. A large percentage of the hot air is recirculated for better thermal efficiency.

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dished-head cylinders are made for steam pressures up to twenty-two pounds per square inch.

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WEST POINT, GEORGIA

WHAT OTHERS ARE SAYING—

of Arabia" could not sweeten the smell coming from the Soviet empire.—*The Textorian*, Cone Mills Corp.

The Fur-Bearing Nylon

THE world is full of animals, many of which have strange names and habits. Some folks know at least a little something about such peculiar creatures as the armadillo, the panda, the ocelot, the kinkajou, the coati mundi,

the agouti, the capybara, the yak, the vicuna, the koala, the platypus, and the lemming.

Fewer have even heard of such exotic animals as the bongo, the pica, the capajou, the dik-dik, the wombat, the echidna, the dingo, the Tasmanian devil, the fennec, the chuckwalla, and the cuscus.

You can get books that will tell you about all of these—their food preferences, where they live, their mating habits, their means of attack and of defense, how to hunt them, what kind of pets they make, whether they live

in groups or go it alone, their instincts, hibernation, migration, locomotion and so forth. That will make them seem a little less strange, perhaps. But the creature we'd like to hunt is the fur-bearing nylon.

Is there any such animal? Judge for yourself. The Air Force says that nylon fur is being used with great success by its forces in Arctic service. It is saving the taxpayer money, since it only costs about one-fifth as much as the wolf hides and sheepskins that the Air Force used to line flyers' jackets and hoods with.

That means, apparently, that the fur-bearing nylon must be easier to trap and skin and tan than most creatures are, so it must be abundant. But so far we haven't seen any women around here wearing coats of nylon fur. That's strange, come to think of it.

The zoological books, however, don't even mention the creature. Does anyone know where we could get hold of a pair?—*Gastonia* (N. C.) *Gazette*.

Textile Outlook Now

THE textile industry, in which this section is particularly interested, has entered the third quarter of the year with some evidences of a slackening of orders and greater uncertainties as to the immediate future.

The longer-range outlook, however, is still good for the industry as a whole, according to the best analyses of the situation; and the present let-down actually has grown out of near-record-breaking operations during the last 12 months, and is regarded as a transition stage which will be succeeded fairly shortly by higher levels of activity as military buying increases and civilian demand again becomes normal.

But it is admitted that June brought a sharp decline in new orders, and this is the basic reason for the present period of lag. However, the industry finds cheer in an Agriculture Department forecast that near-record domestic cotton consumption should prevail during the 1951-52 crop year. The federal authorities estimate that American military buying, especially of heavy textiles, will offset fully any decline in cotton use due to possibly decreased civilian demand.

There is good reason therefore to believe that the months of the fourth quarter, or even earlier, will bring re-

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newal of high rates of cotton manufacture, under the press of larger orders for both the military and civilian use.

This prospect is cheering not only to the textile mills and their employees, but also to the cotton producers of the South who are now about to harvest probably the largest crop of cotton in many years.—*The Greenville (S. C.) News.*

Business Dictionary

A Program: Any assignment that can't be completed by one telephone call.

To Expedite: To confound confusion with commotion.

Co-ordinator: The guy who has a desk between two expeditors.

Consultant (or Expert): Any ordinary guy more than 50 miles from home.

Re-Activate: To make carbons and add more names to the memo.

To Implement A Program: Hire more people and expand the office.

Under Active Consideration: We're looking in the files for it.

A Conference: A place where conversation is substituted for the dearth of labor and the loneliness of thought.

Reliable Source: The guy you just met.

Informed Source: The guy who told the guy you just met.

Unimpeachable Source: The guy who started the rumor originally.

A Clarification: To fill in the background with so many details that the foreground goes underground.

We Are Making A Survey: We need more time to think of an answer.

Note And Initial: Let's spread the responsibility for this.

See Me, Or Let's Discuss: Come down to my office. I'm lonesome.

Let's Get Together On This: I'm assuming you're as confused as I am.

Will Advise You In Due Course: If we figure it out, we'll let you know.

To Give Someone The Picture: A long, confused and inaccurate statement to a newcomer.

Spearhead The Issue: You be the goat.

Point Up the Issue: To expand one page to 15 pages.

The Issue Is Closed: I'm tired of the whole affair. — *Seen in innumerable publications during recent months; author unknown but complimented.*

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Textile Schools

This is the time of year when many textile mill employees have to decide whether or not sons, who graduated from high schools last June, shall enter the mill with the idea of working their way up, or shall attend a textile school, such as North Carolina State College, Clemson College or Georgia Tech.

When the textile mill employees were of the same age of their sons, textile school graduates were not, as a rule, very popular with mill managers and a young man entering a mill had about as much chance to advance as one who spent four years at textile school.

Wages were very low in those days and very few of them had parents who could spare enough to pay for a son's college education.

Today many mills begin in January to send representatives to the leading schools of textiles to look over as potential employees the boys who will graduate the following June.

Many of the most able and successful textile manufacturers are men who came up through the mill and there will always be some who because of exceptional ability will reach the top that way.

Because textile manufacturing has become far more technical and complicated than in the past and because the schools of textiles have been greatly improved, no one will deny that the young man who secures a textile education will have a far greater chance to advance than one who enters the mill with only a high school education.

The wages of mill employees are now high enough for many of them to be able to finance part of a son's education and most colleges and most of the local civic clubs have loan funds from which worthy boys can secure loans which can be repaid over a period of years after graduation.

The starting salaries of textile school graduates are now so high that it is not difficult for them to liquidate an indebtedness of that kind in a comparatively short time.

The student entering a textile school now usually has the choice of the following courses:

- (1) Textile Manufacturing.
- (2) Textile Management.
- (3) Textile Chemistry and Dyeing.
- (4) Yarn Manufacturing.
- (5) Weaving and Designing.
- (6) Wool Manufacturing.
- (7) Knitting.

Each of these courses leads to a different type of employment.

We feel that mill employees who can manage to send their sons to a textile school will be giving them a much better chance to earn a good living.

U. S. Sales Tax

The National Retail Dry Goods Association favors a Federal retail sales tax but only as an alternative to a general manufacturers' excise levy.

Ralph W. Button of New York, head of the association's taxation committee, said: "I have faith and confidence that our people would accept a national retail sales tax in lieu of a broad manufacturers' excise tax if the facts of the problem were laid before them in a straight-forward manner."

He said the retail tax would have these advantages over the manufacturers' levy: It could not be pyramided and would not be figured in cost-of-living statistics and thus lead to new wage demands.

While the National Retail Dry Goods Association favors a retail sales tax only as an alternative to a general manufacturers' excise tax, we have long believed that a Federal retail sales tax is the only means which can be found to liquidate the immense indebtedness of this country.

We favor cancelling all state sales taxes, levying a 5 per cent retail sales tax which would be collected by the U. S. Department of Internal Revenue, which would then turn over to each state 2½ per cent of the retail sales tax collected within that state.

A retail sales tax is the fairest tax which can be levied and it reaches many persons which benefit from government and state services but pay no taxes in return.

Having lived in a state which has had a 3 per cent sales tax for 18 years, we know that it is a painless but fair system of securing revenue, and that after people become accustomed to a retail sales tax, they scarcely realize that it is being paid by them.

Dan River C.I.O. Now Collecting Dues

With very much interest we note the following:

Danville, Va., Aug. 8—The Textile Workers' Union of America (C.I.O.) announced today that it has begun collecting dues from its local members through a union collecting agency.

This means that check-off system, which was forced upon the Dan River Mills during the recent war by the War Labor Board, will no longer exist at those mills.

The Dan River Mills, which frequently sets the pattern for other Southern mills, has refused to continue to act as a

dues collection agency for the C.I.O. and no one can give any sound reason why they should act in that capacity.

Other organizations collect dues from their members and the C.I.O. certainly gets enough dues from Dan River Mills members to operate its own dues collection agency. It is reported that they have been getting about \$4,000 per week, or \$200,000 per year, but they certainly did not use much of it to help their members during the recent strike.

Emmanuel Boggs, the local T.W.U.A. leader, Emil Rieve, George Baldanzi and all of the C.I.O. officials drew full salaries during every week of the strike but the local members lost large sums in wages and received only a small amount of food from the \$200,000 which the Dan River Mills had been forced to take from their pay envelopes, during the previous 12 months, and deliver to Emmanuel Boggs.

From now on the C.I.O. will have to collect the dues from its members and that is as it should be.

The Dan River Mills has also insisted that any new contract shall contain a clause terminating it in case of a strike.

That is a wise provision because there is no legitimate reason why a mill which has been shut down by a strike should continue to be bound by a contract with the union which caused the strike.

Reports from Danville say that the members of the Dan River Mills C.I.O. are so resentful of the recent six-week strike and the loss in wages which they sustained that they are leaving the union in droves and that it is doubtful that the C.I.O. can long claim to represent the workers.

We congratulate the management of the Dan River Mills for standing firm in their refusal to continue to collect dues for the union and their insistence that a union contract be cancelled in case of a strike.

Second Annual Conclave

The Second Annual Conclave of graduates and former students of the School of Textiles at North Carolina State College will be held this year on a Friday and a Saturday during the last part of October or the early part of November.

The Friday morning and afternoon sessions and the Saturday morning session, as was the case last year, will be somewhat in the nature of refresher courses and attention will be called to recent developments in textile manufacturing.

Friday night there will be a banquet with TEXTILE BULLETIN acting as host during the social hour which proceeds the banquet.

The attendance at the 1950 conclave was approximately 220 and it was such a success and was so enjoyable that it is believed that fully 300 will be present this year. New York alumni have already booked more than a solid Pullman car.

Men who are working upon their jobs day after day are liable to get into somewhat of a rut and it does them good to be able to meet with others in the same line of business and exchange ideas.

The program has not yet been completed and therefore cannot yet be announced, but is certain to be on a par with that of last year.

One worthwhile feature of the conclave is that it promotes the acquaintance of the younger alumni with the older alumni.

Nomenclature Of Crime

The daily newspapers of Aug. 8 carried two interesting items.

(1) Gangsters were shot to death by rival gangsters in Hollywood, Cal.

(2) A professional gambler was blown to bits by dynamite attached to his mail box at Grapevine, Tex.

Had a Negro rapist been shot to death in the South, most of the newspapers in the North and West would have used big headlines to carry the news and many of them would have written editorials about the "lynching" in the South.

The killing of men in California and Texas because they were cutting in on rackets or gambling privileges did not rate large headlines or editorials of condemnation.

Clarendon County

By a recent 2 to 1 decision a Federal Court refused to order Clarendon County, S. C., to admit Negroes to white schools but did order the county to bring the Negro schools up to par with the white schools.

That decision gave the impression that Clarendon County was not doing right by the Negroes but statistics show that they are now paying \$275,000 per year to Negro teachers as against \$186,000 paid white teachers.

White people in Clarendon County pay 80 per cent of the property taxes and 85 per cent of the State and Federal taxes, but that 70 per cent of benefit money distributed in the county goes to Negroes.

The following Clarendon County statistics will be found interesting:

	White	Negro
Number of Schools	12	60
Number of Teachers	97	202
Salaries of Teachers	\$186,129	\$275,124
Enrollment of Schools	2,375	6,780
Average School Attendance	2,084	5,085
Proportion of Property Taxes paid	80%	20%
Portion of State and Federal Taxes	85%	15%
Portion of benefit money goes to	30%	70%

South Carolinian Slanders His State

We notice the following newspaper story:

San Francisco, Aug. 9—A South Carolina attorney says his state is controlled by a Northern financial combine that has created one of the most despotic governments that ever existed.

John B. Culbertson, a Greenville, S. C., attorney, told the convention of the National Association of Claimants' Compensation Attorneys here yesterday: "The state's entire economy is controlled not by South Carolinians but by foreign interests, chiefly from New York, Massachusetts and other New England states, with some British interests thrown in for good measure."

He said the State Legislature is nothing more than a puppet in the hands of textile interests, power trusts and railroads. They moved to South Carolina, Culbertson said, to escape Northern taxes and to seek cheap power and labor.

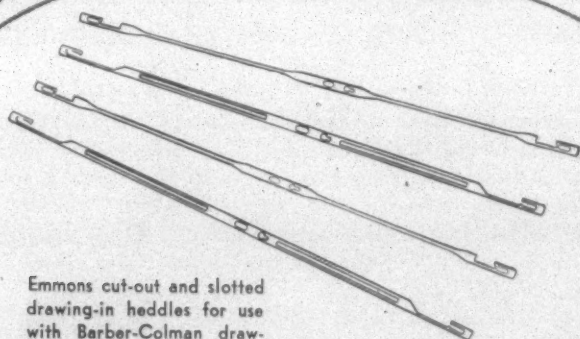
We do not know John B. Culbertson, in fact never heard of him, but we do know that his statements were false.

It is unfortunate that a man willing to make such false statements about his home state should get an opportunity to do so in far away California where people may think that he is a representative citizen.

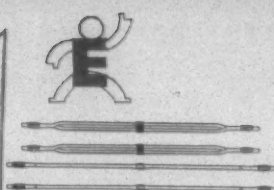
Judging by the name of the organization whose convention

SPOTLIGHTS ON LOOM HARNESS PROGRESS!

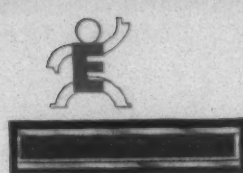
DRAWING-IN HEDDLES



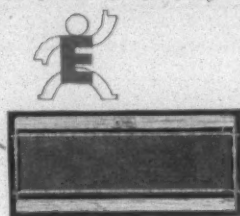
Emmons cut-out and slotted drawing-in heddles for use with Barber-Colman drawing-in machines.



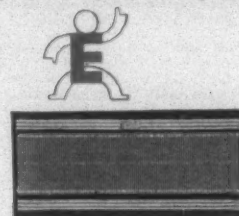
HEDDLES
Standard, Drawing-In
(Slotted and Cut-Out.)



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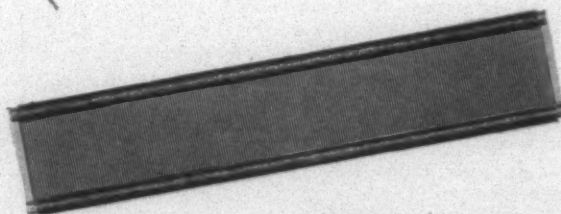


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TEXTILE INDUSTRY SCHEDULE

— 1951 —

- Sept. 8—SOUTHEASTERN SECTION, A.A.T.C.C., Columbus, Ga.
- Sept. 16-17—SOUTHEASTERN PERSONNEL CONFERENCE, Duke University, Durham, N. C.
- Sept. 12—A.A.T.T., Builders Club, New York City.
- Sept. 13-14—Fall meeting, FIBER SOCIETY, Swampscott, Mass.
- Sept. 20-21—Annual convention, SOUTH ATLANTIC COUNCIL OF INDUSTRIAL EDITORS, Asheville, N. C.
- Sept. 22—PIEDMONT SECTION, A.A.T.C.C., Charlotte Hotel, Charlotte, N. C.
- Sept. 28—Annual meeting, SOUTHERN COMBED YARN SPINNERS ASSOCIATION, Charlotte Hotel, Charlotte, N. C.
- Oct. 3—A.A.T.T., Builders Club, New York City.
- Oct. 4-5—Annual convention, CARDED YARN ASSOCIATION, Carolina Hotel, Pinehurst, N. C.
- Oct. 8-12—NATIONAL SAFETY CONGRESS AND EXPOSITION, Chicago, Ill.
- Oct. 12—TEXTILE QUALITY CONTROL ASSOCIATION, Clemson (S. C.) House Hotel.
- Oct. 13—EASTERN CAROLINA DIVISION, S.T.A., Erwin Mills Auditorium, Durham, N. C.
- Oct. 17-19—Annual national convention, AMERICAN ASSOCIATION OF TEXTILE CHEMISTS & COLORISTS, Statler Hotel, New York City.
- Oct. 18-19—Annual convention, NORTH CAROLINA COTTON MANUFACTURERS ASSOCIATION, Carolina Hotel, Pinehurst.
- Oct. 27—NORTHERN NORTH CAROLINA-VIRGINIA DIVISION, S.T.A.
- Nov. 3—SOUTH CAROLINA DIVISION, S.T.A., Clemson (S. C.) School of Textiles.
- Nov. 7—A.A.T.T., Builders Club, New York City.
- Nov. 8-9—Annual meeting, TEXTILE RESEARCH INSTITUTE, New York City.
- Nov. 10—PIEDMONT DIVISION, S.T.A., Charlotte, N. C.
- Nov. 26-Dec. 1—EXPOSITION OF CHEMICAL INDUSTRIES, Grand Central Palace, New York City.
- Dec. 1—SOUTH CENTRAL SECTION, A.A.T.C.C., Hotel Patten, Chattanooga, Tenn.
- Dec. 3—AMERICAN ASSOCIATION OF TEXTILE TECHNOLOGISTS, Builders Club, New York City.
- Dec. 8—SOUTHEASTERN SECTION, A.A.T.C.C., LaGrange, Ga.
- Dec. 13-14—Film, Sheeting and Coated Fabrics Division, SOCIETY OF THE PLASTICS INDUSTRY, Hotel Commodore, New York City.

— 1952 —

- Jan. 14-17—PLANT MAINTENANCE SHOW, Convention Hall, Philadelphia, Pa.
- March 3-7—Spring meeting and committee week, A.S.T.M., Hotel Statler, Cleveland, O.
- April 16-17—Spring meeting, FIBER SOCIETY, Clemson (S. C.) House Hotel.
- April 16-18—Annual convention, COTTON MANUFACTURERS ASSOCIATION OF GEORGIA, Boca Raton (Fla.) Hotel and Club.
- May 6-9—INTERNATIONAL LIGHTING EXPOSITION AND CONFERENCE, Cleveland (Ohio) Auditorium.
- May 15-17—Annual outing, CAROLINA YARN ASSOCIATION, The Carolina, Pinehurst, N. C.
- May 15-17—Annual convention, AMERICAN COTTON MANUFACTURERS INSTITUTE, Haddon Hall, Atlantic City, N. J.
- June 12-14—Annual convention, SOUTHERN TEXTILE ASSOCIATION, Ocean Forest Hotel, Myrtle Beach, S. C.
- June 23-27—Annual meeting, AMERICAN SOCIETY FOR TESTING MATERIALS, Hotel Statler, New York City.
- Nov. 6-8—Annual national convention, A.A.T.C.C., Boston, Mass.

— 1953 —

- Sept. 17-19—Annual national convention, A.A.T.C.C., Stevens Hotel, Chicago, Ill.

— 1954 —

- April 26-May 1—AMERICAN TEXTILE MACHINERY EXHIBITION, Atlantic City (N. J.) Auditorium.

EDITORIALS

he was attending, we are inclined to rate him as an unsuccessful ambulance chaser.

Swelling Government Pay Rolls

A gentleman who has recently spent some time in Washington, D. C. and is not given to making wild or inaccurate statements, says that during the past 60 days, Government agencies in Washington have added employees at the rate of more than 2,000 per day. He states that so many unnecessary employees have been added that it has been difficult to find duties for them to perform and that some have been told to do their personal correspondence at their desks so that they can appear to be busy. We can not absolutely vouch for that statement but we regard our informant as reliable.

We do know that Europe is swarming with American men and women whose travel expenses are being paid by the United States. For many years Congressmen and Senators have been traveling abroad at public expense but now every conceivable excuse is being used to give European tours to civilians at the taxpayer's expense.

The Hart Cotton Mill Decision

One of the most unfair decisions ever rendered by the National Labor Relations Board, that relating to the Hart Cotton Mills of Tarboro, N. C., has been overruled by a unanimous vote of the United States Court of Appeals sitting at Richmond, Va.

After fifteen bargaining conferences lasting from March 31 to May 12, 1949, and after agreement had been reached upon all but four of the issues, none of them of major importance, the C.I.O. ordered a strike at the Hart Cotton Mills, Tarboro, N. C.

The strike was marked by violence. Thirty or forty men were convicted of assaulting those who desired to work, three persons were convicted of firing bullets into the home of a watchman and one person assaulted the manager by striking him in the face.

In spite of court injunctions, the gates were blocked by mass picketing for a month after most of the employees had returned to work.

The trial examiner, whom the National Labor Relations Board sent to Tarboro, absolutely ignored all of the facts surrounding the case, including the lawless acts committed by the strikers, and reported that the mill had refused to negotiate with the union and was entirely to blame.

We doubt that any greater liar has ever written a report on a labor disturbance.

The National Labor Relations Board accepted the trial examiner's report without question and ordered the Hart Cotton Mills to reinstate striking employees to the same or equivalent jobs and to make whole each employee for any loss in pay. As the strike had lasted for several months, the back pay ordered amounted to an immense sum.

Pierce & Blakeney of Charlotte, N. C., as attorneys for the Hart Cotton Mills, appealed the case and presented undeniable evidence that the trial examiner's report, which was accepted by the National Labor Relations Board, was a gross misrepresentation of the facts.

The Court of Appeals by a unanimous vote set aside the order of the National Labor Relations Board.

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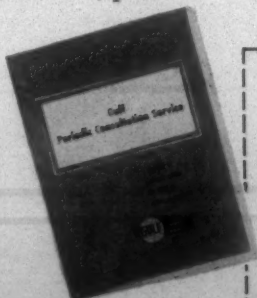
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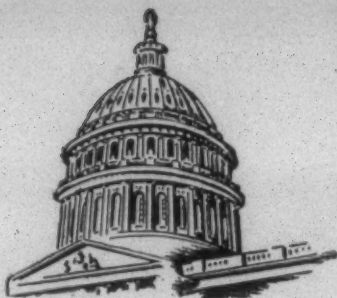
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WATCHING

WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

Truman leaders and Fair Dealers are dallying with the thought of a joint Democratic and Republican nomination of Eisenhower next year. Principal proponents are internationalists who favor prolonged economic and military aid to Europe and "depressed" world areas. It is also wrapped around civil rights, and socialized housing and medicine. If the idea catches on, Truman is expected to declare himself out as a candidate for renomination.

A coalition nomination for Eisenhower involves hundreds of deals in the making, some of them abroad. Few top leaders in either party regard it as feasible or practical. Chief promoters include union leaders generally, and Claude Pepper, Hubert Humphrey, Chester Bowles, Leon Henderson, Jim Murray, Wayne Morse, William Benton and Jim Duff, with Dewey and Stassen fully informed of the move.

Top Fair Deal leaders are finding that the revolt in the South against Truman is sharp, deep and hard, and far stronger and better led than in 1948. There's "inside" talk among them to nominate a Southerner for second place on next year's ticket to try to break the revolt. Those mentioned most often are Estes Kefauver and Lister Hill, both ardent Fair Dealers and high up in Truman's confidence.

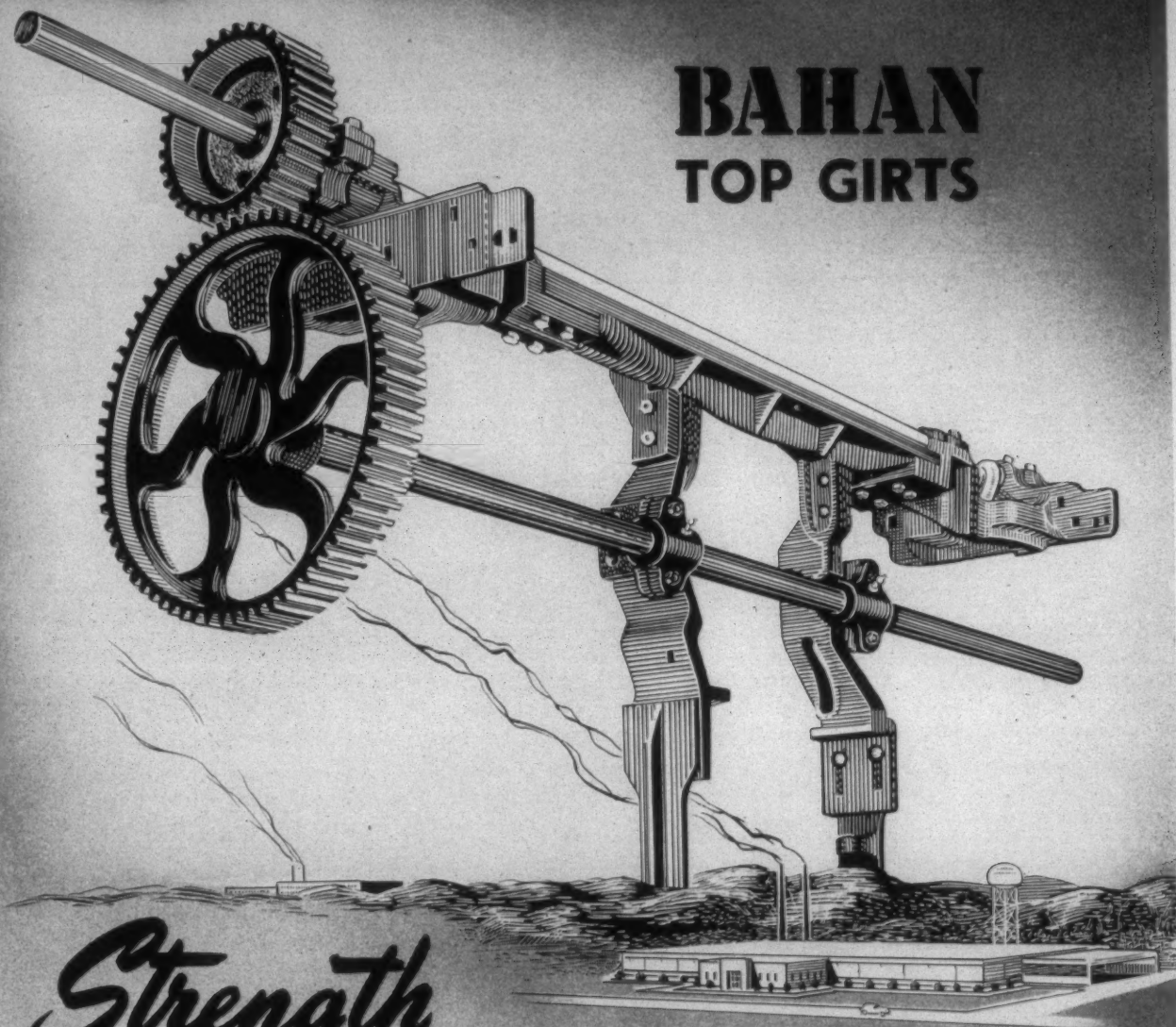
Big C.I.O. unions dominated by Communists are the chief contributors to the bail fund of the Civil Rights Congress, according to Department of Justice officials. Frederick V. Field and others went to jail for refusing to reveal sources of the money. If they had done so a whole roster of C.I.O. "red" unionists would have faced indictment for embezzlement of union funds.

The Department of Justice knows that for several years the big C.I.O. Communist unions have quietly leaked funds and dues to the Communist Party and its "red fronts." Hundreds of cancelled checks, payable to the Civil Rights Congress and charged against union funds, have been uncovered by Justice agents. Whether there will be indictments is not admitted by the Attorney General.

Sufficient records have been seized by the Department to reveal that since 1937 there has been a steady stream of dues and union funds flowing into "red pockets." One Detroit union alone in earlier years poured out over a half million dollars. Communists were deliberately infiltrated into key union positions to facilitate the "leakage."

Diversion of union funds to other causes, political and

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subversive, is believed by some members of the House Ways and Means Committee to be the chief reason of unions for making public accountings of their incomes. Full revelation of the bail bond scandal would probably give strong impetus to the proposal to require complete accountings of all union funds.

Pressure for stupendous spending this year is not coming from Truman so much as it is from the Senate. Big spending is led by nine senators from seven small and medium states, all Fair Dealers. The Senate has raised the House sums in every appropriation bill coming up in July, adding almost \$6 billion.

Poor arguments made by military witnesses before the House Foreign Affairs Committee for the \$8.5 billion foreign aid bill may lead to wholesale shifts of Army officers. General Marshall may retire, too. Truman was furious at the rambling arguments, and ordered the State Department to issue new strong statements of Russian military strength.

All workers in and out of industry would be given cost-of-living pay increases under a proposal unanimously advanced by the Wage Stabilization Board. Such increases have been allowed heretofore only to the three million workers covered by union contracts with escalator clauses. Chairman Taylor said W.S.B. has decided "wages should be related to cost of living," which sets up a new primary rule.

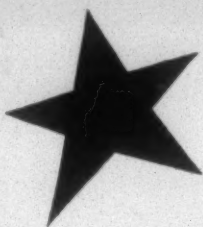
Senate Republicans assert the belief Truman is deliberately provoking inflation, and moving toward five and ten-cent dollars, as a step for retiring part of the national debt. They call it printing press money, and point out that debt retirement would be by means of a capital levy due to depreciated money.

The record-breaking \$56 billion defense spending bill passed by the House is \$1.5 billion less than Truman sought, but \$8 billion higher than last year's defense bill. But the bill does not include current Korean war costs, or proposed military construction projects over the world.

Big government has become so huge in its details and complexities that Congress cannot handle the costs and grants with the existing legislative machinery. With more than two months' delay in passing money spending bills, leaders are earnestly studying means to simplify and streamline the legislative processes. Measures to this end will come up in the next Congress.

Wage Stabilization Board is clearing the way to scrap the ten per cent wage increase formula, and set a goal of 15 per cent. This means a new round of wage increases this Fall. The action is taken as a concession to union leaders who want "recent gains consolidated and expanded."

All federal workers will be given a pay raise of \$400 a year under a bill approved by the House Civil Service Committee. Passage in both houses is deemed certain. The bill comes at a time when about 2,900 new employees a week are being added to the federal payrolls.



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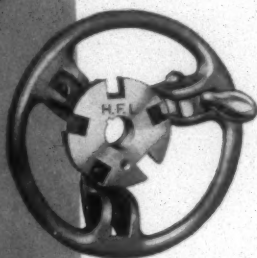
1951

LOOM PARTS



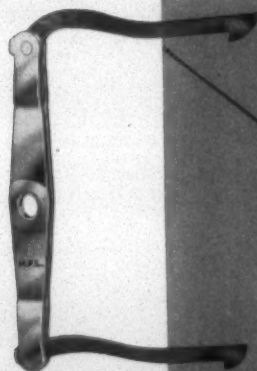
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Carpet manufacturing plant of James Lees & Sons Co. at Glasgow, Va.

Those 'Heavenly Carpets By Lees'

AT Glasgow, Va., in the foothills of the scenic Blue Ridge Mountains, just a few miles from Natural Bridge, stands one of the most modern and unique carpet mills in the world. It is the mill of James Lees & Sons Co., well-known manufacturer of carpets for over a hundred years, with headquarters at Bridgeport, Pa.

Ground for the Glasgow mill was broken in 1934. This mill manufactures "Those Heavenly Carpets by Lees"—in Wilton, velvet and Axminster, and today occupies over 20 acres or approximately 900,000 square feet of factory space on a single floor, under one roof. It contains 24 of the widest gauge spinning frames ever built. The spinning mill proper is completely temperature and humidity controlled.

Glazed tile walls reduce maintenance costs. Acoustical ceilings reduce noise. The entire plant is equipped with a sound amplification system for music and announcements. Present employment is around 2,000, with an annual payroll approaching \$6,000,000.

An Ideal Location

The story of how this mill came to be located in a hitherto rural community is one that interested us immensely, on the occasion of our visit to this most modern of mills, with Robert Bowman and William Dickson, Link-Belt sales engineers from Philadelphia and Baltimore, to photograph a few of the many items of Link-Belt power transmission employed on the various units of mill equipment.

Mr. Earl B. Morgan, recently retired vice-president of the Lees organization, traveled South from Bridgeport in 1933, as the story goes, in search of a site on which to build the "most original carpet mill in America." After inspecting

more than a hundred sites below the Mason-Dixon line, he finally arrived at Glasgow. There, near the conjunction of the Maury and James Rivers he saw an undeveloped tract of level land covering an area of over a hundred acres. On one side of it was the Chesapeake & Ohio Railway and on the other the Norfolk & Western. Good access secondary highways led from the town to two of the principal main highways both North-South and East-West, and it was truly a perfect location.

Investigation shortly revealed that the only reason someone else hadn't bought it, comprised a story in itself. In 1889, it was found that the land contained iron ore, and promotional plans had been laid to make Glasgow a boom town. Land was divided and sold. An expensive hotel was built. But then it was found that, because of the poor grade of the ore, it would be unprofitable to mine it. The particular hundred acres that Earl Morgan so admired had been divided into numerous individual lots, and the descendants of the original owners were either unknown or widely scattered. One ten-acre lot, however, was owned by Charles Locker, famous civil engineer, who was a native of Rockbridge County. Morgan succeeded in buying this sizeable lot, but it took years of intensive legal work to establish the titles and purchase the rest of the 100 acres.

In the process of establishing the new mill, it was definitely agreed that no outside labor would be brought into the community. The local labor in the county consisted mainly of farmers of English and Scotch-Irish extraction, whose families had lived in the area for many generations. The surnames of many of the employees in the mill today may be found in the cemeteries, dating back 200 years or more.

It was the general belief of industry at that time that

rural labor could never be taught how to operate modern carpet machinery efficiently. Nevertheless, the Lees company, which was then under the leadership of A. T. Eastwick, decided to risk the experiment. Under the direction of Earl Morgan, who was the first general manager of the new mill, an old tea room in Glasgow was rented and a half dozen experts were brought in from the company's Philadelphia carpet mill. A few narrow looms were installed, and the training of local operators was begun. These local people served as on-the-job instructors when the first part of the new mill was ready for occupancy in mid-1935. Contrary to pessimistic predictions, the plan was a complete success. The people were highly intelligent, learned quickly and, most important, learned to pass their new skills on to others.

In 1937, the plant was enlarged to twice its original size and the employees numbered about 600. An Axminster carpet mill was completed in 1941, and employment was more than doubled. When the war came, the major portion of the plant was converted to the production of canvas duck for the Army and Navy. And the Blueridge Company, as it was called locally, won the Army-Navy "E" award with four stars.

In September, 1945, work was started on a new yarn spinning mill and dyehouse, and this project was completed in 1947. At a cost of around \$450,000, a completely equipped industrial waste plant was built to neutralize and purify the acid dye waste and alkaline scouring waste before emptying in the Maury River. Other major additions to the mill were completed in 1949.

We Tour the Plant

In the company of Jack Leary, our genial host and guide on a tour of this mammoth plant, we learned and saw entirely too many interesting things to be able to cram them all into this short story. Aside from the modern equipment and the size and roominess of the plant, we noted particularly the air of friendliness that prevailed.

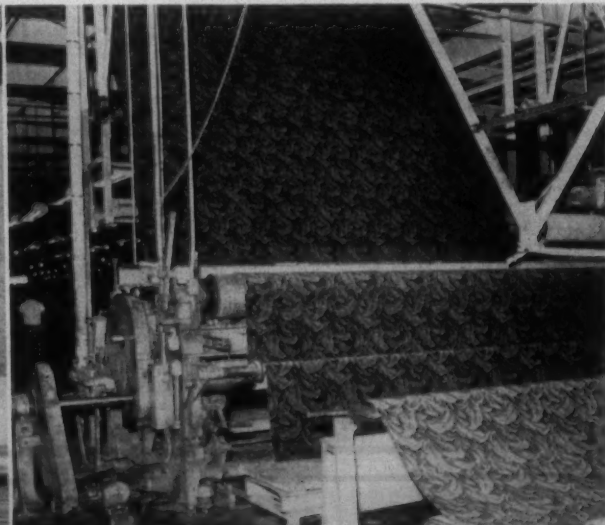
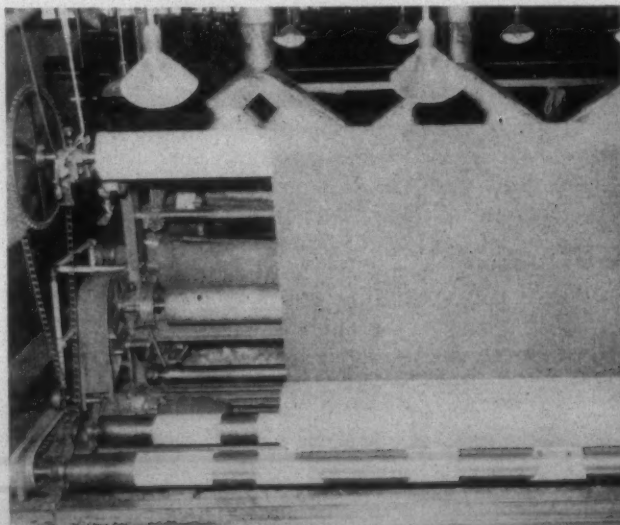
Mr. Leary explained that there are no "bosses" at Lees; that the management had in most cases arrived the "hard way," and that Wert Faulkner, the present general manager, himself had been a native of the region when the plant was first established. It was stressed that the people

who operated the wool carding machines, the spinning frames, the dye vats and the looms were the most important factors in the production of carpet, as they controlled continuity and reliability of production but that conversely there probably would not even be a plant if the modern machines they controlled were non-existent.

Carpet making starts with the production of the yarn from wool shipped to Lees in bales weighing 400 or 500 to 900 pounds, from such countries as Argentina, Scotland, India, Iraq, Egypt and Syria. The wools grown throughout the world can be divided into two kinds—carpet and clothing wools. The United States gets only soft, fine-diameter clothing wools from its sheep. Thus, every pound of wool used by Lees in the manufacture of carpets and rugs must be imported from other countries. About 85 per cent of the wool received is clipped-wool taken from live, healthy sheep by shearing the animal, either once or twice a year. The other 15 per cent is pulled-wool removed from the hides of slaughtered sheep by chemical action.

Sheep, like other animals, grow wool in various natural colors. These colors usually appear on the animal in spots. About 80 per cent of the wool grown is white. The colored wools (yellow, fawn, brown, gray, black) are sorted and packed separately in the countries of origin. Wools from different countries have various characteristics. The most important characteristics are: (1) *Color*, which is quite important from the standpoint of being able to dye the wool in any desired color. Consequently, white wool is in prior demand and usually commands a higher price. (2) *Strength of fiber*, or ability to carry a dead load. (3) *Stiffness*, or the ability of the fiber to carry a load without deformation or becoming soft and mushy. (4) *Elasticity*, or the ability of the fiber to undergo deformation and return to its original shape upon cessation of deforming force. (5) *Coverage*, or the ability of the fiber to spread over a surface to conceal it. In other words, the wool fibers should make a fat yarn in order to cover the face of the carpet completely. (6) *Resilience*, so that the wool fibers in the carpet will be able to give way without breaking or remaining in a crushed position when the foot is removed. (7) *Toughness*, or the ability of the fiber to endure large, permanent deformation without rupture.

In order to make good carpet yarns, it is necessary to



At left, a Curtis & Marble carpet shearing machine in the Lees plant. At right, Axminster carpet starting through backsize machine prior to entering a Proctor & Schwartz dryer. The shearer and backsize machine both are equipped with Link-Belt P.I.V. variable speed drives.

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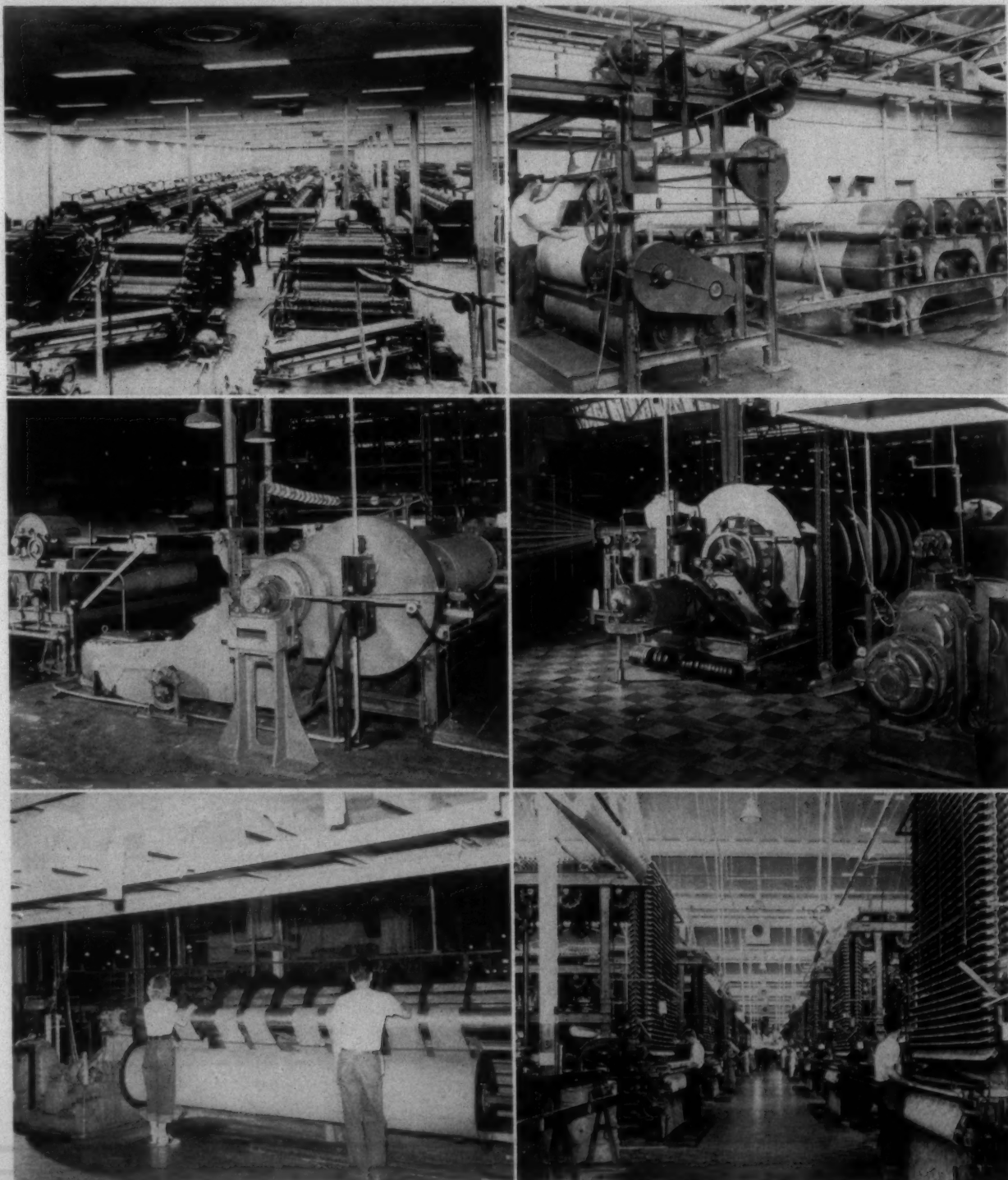
**Aldrich Machine
Works**

Greenwood, South Carolina

mix a number of these foreign wools together. This operation is called blending. By using a percentage of a number of different kinds of wool, a carpet yarn of more uniform quality is produced, which furthermore is more readily reproduced.

In preparing the wool to make carpet yarn, it must first be sorted to remove even small bits of color remaining in the white, and remove such extraneous material as cotton, rayon or vegetable material inasmuch as the wool dyes would not cover them. The objectionable item of cotton may be

a wrapping string from a workman's lunch, and often is. Another troublesome item is the hot tar or red paint that sheep grazers in Scotland and Ireland apply to the wool on some part of the body of each sheep as the only means of ownership identification. Grazing land being limited, several farmers may rent the same pasture for the sheep to graze on for five or six months. At Lees, we see women with shears or scissors cutting the black tar or red paint marks from the wool because the dyestuff would not cover these markings. Still another concern is to be sure to elimi-



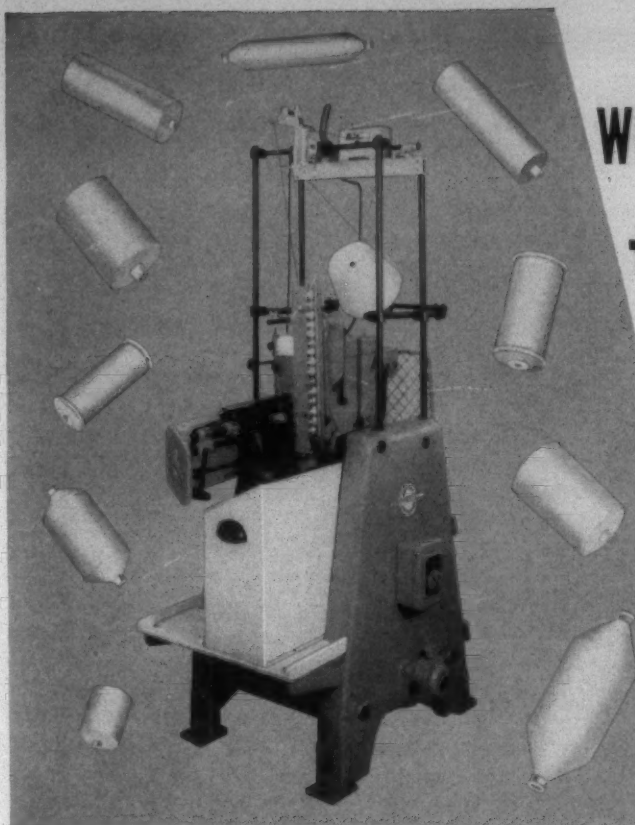
Scenes in the Glasgow plant of James Lees. Top left, wool cards and spinning frames. Top right, Butterworth cotton yarn slasher. Center left, Butterworth jute yarn slasher. Center right, Lansdowne 24/4 wool beamer. Lower left, another view of the wool beamer, which is equipped with a five-horsepower Link-Belt Electrofluid gearmotor and a ten-horsepower Link-Belt motorized P.I.V. variable speed drive. Lower right, the weave shed at Glasgow.

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AUTOMATIC
OPERATION**



The Foster-Muschamp "Autoquill" is designed to produce automatically uniform packages of the highest quality. It will wind any type of yarn on stick quills varying from 13/16" to 5-1/2" traverse, with straight or oblique ends.

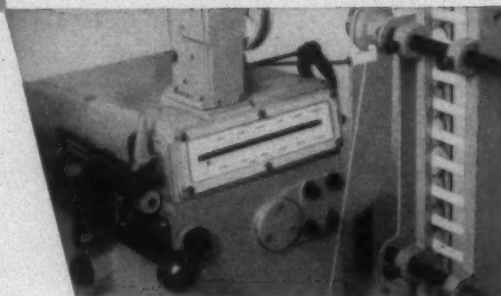
Normally equipped for single end winding, it can be fitted for winding as many as four ends at speeds up to 2,500 r.p.m. (stick quills) and 5,000 r.p.m. (flanged quills). The magazine holds 40 average size quills and is easily adjustable to cover the full range of quill sizes.

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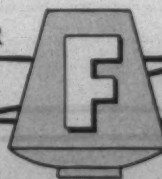


Close-up showing measuring device, visual traverse adjustment dial, and starting handle.

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QUALITY WINDERS FOR ALL TYPES OF YARNS

nate the moth balls that come with bales of wool shipped from India.

Blending, Scouring, Blending

As many as ten different types of fleeces are put together on a long mixing apron conveyor in percentages that the master blender prescribes to assure a yarn that will make the best-looking and longest wearing carpet. From this apron, the wool passes to a feeder which regulates the amount to be processed per hour, and then to a picking machine which opens the matted fleeces and in turn discharges to a duster or beater for automatic removal of particles of sand and earth.

Now the wool passes through a tub of water with an alkali added under controlled temperature and then through two squeeze rollers to another bowl in which soap has been added. Then the excess water is removed, and the wool conveyed through three more bowls, all with clear water for rinsing. Thoroughly scoured, the wool now passes to a dryer to be brought down to the required moisture content. By now the original dirty, smelly mass of wool has lost about 35 per cent of its weight and is as sweet as new mown hay.

The next step on the wool's journey is in the blending room, where it must be carefully handled to get all lengths and sizes of fiber equally mixed throughout the mass. Here the wool is built up in layers from the floor to ceiling with the help of floor conveyors and ceiling belts, and then withdrawn vertically like cutting yourself a piece of layer cake. The wool goes through this blending process three times, and meanwhile travels through a picker which further teases the wool into a more open state, ready for the carding machines in the card room.

Carding, Spinning, Dyeing

Carding is a combing-out process, accomplished by pulling the wool through the teeth of the carding machines, of which the Lees plant has quite a number. This is done with great care by starting with teeth wide apart on first cylinder of machine and gradually having the teeth closer together on succeeding cylinders, to open and lay all fibers parallel, freeing them of lumps, and doing all this without fiber breakage.

At delivery end of carding machines, the continuous web

of carded wool is put on spools, without twist, to feed the next operation, which is spinning. In the spinning room, the spinning machines further parallel the fiber, draw out thick places, and put the desired twist in the single thread, for strength. Still further paralleling of the fiber is accomplished by what is known as draft.

Now wound on a bobbin, the yarn is transported from the spinning to the twisting department, where it is given yarn, or a soft twist as needed for other velvets, Axminster yarn, or a soft twist as needed for other Velvets, Axminster or Wilton carpets. The twist may be two, three or four-ply.

The wool yarn is next sent to the dyehouse if it is to be woven into carpet in other than the clear white. The dyeing is done in modern stainless steel vats so that not a trace of dye can carry over into the next batch of dyestuff.

Wool preparation, carding, spinning, twisting, dyeing, weaving, finishing, shipping, are consecutive steps, but it should be borne in mind that wool forms only the all-important pile fabric or weaving surface of the carpet. The backing materials too are very important, and no good pile covering can be made without them. They are necessary to create the weave which binds the wool into the fabric, and to form a support for the wool. Cotton yarns form the warp or lengthwise yarns; cotton and jute form the weft or crosswise yarns; and jute is usually employed for the "stuffer yarns" which give strength and body to the fabric. The cotton comes from our Southern states, or is imported from Egypt. When spun into yarns, it is strong, durable and not easily stretched. Jute is grown in India.

Carpet Weaving

Space does not permit our entering into a discussion of methods of weaving employed at Lees; or the functions of the various carpet finishing machines; or even the wonders of the Lees laboratories for assuring accurate measurement of textile properties, both physical and chemical. They test the wool, the jute, the yarn, and the completed carpet. There is a laboratory-size carding machine and a "baby" spinning machine. Carpet life is tested by continuous stamping, grinding, rubbing action. They dissect, they tear apart, and they do just about everything in the Lees laboratories except make the carpet say "Uncle."

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Textile Management At Summer School

By FLETCHER HOLLINGSWORTH

IS AMOUNT of time wasted at a minimum in your plant? One of the managers in a North Carolina textile mill had to be shown. And was shown that out of every working day, a certain worker was unconsciously wasting three hours. Many other problems and examples such as this are cited at the Business and Industry Institutes held each Summer at the University of North Carolina at Chapel Hill, N. C.

A textile worker was observed performing his regular duties at the mill. For every 352 pieces produced, the

worker walked one mile. His average turnout was between three and four thousand pieces a day. This would mean that the worker walked, while on the job, approximately nine miles a day. This amount of walking would require about three hours. After improving this worker's working conditions by moving his work place and re-arranging his machinery, his output was increased beyond all previous measures.

The key men of the textile industry who attend the institutes agree unanimously that they profit a great deal from



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their intense study. By putting to practice the things they learn in supervisory training, job improvement methods, and time study, the courses taught at the institutes, they could increase the efficiency of their employees beyond past records. Forty-eight North Carolina companies sending men to the institutes report that the training made the men more valuable to the company in 91 per cent of the cases.

Textile men, attending either one or all of the 1951 institutes were: Joseph R. Barrett, training director of Erwin Mills, Inc., Durham, N. C.; William O. Leonard, Jr., assistant to the personnel director of Cone Mills Corp., Greensboro, N. C.; Russ Murphy, personnel director of Carolina Mills, Maiden, N. C.; Roger Couch of Slater (S. C.) Mfg. Co.; Cecil Thompson, assistant cost accountant of Waverly Mills, Laurinburg, N. C.; John Geist, industrial engineer of American Viscose Corp., Front Royal, Va.; and Grady Lyon of Glenn Mills, Lincolnton, N. C.

These institutes are all a part of supplying business and industry with new ideas and new leaders in the field. Through the extension division of the university, special facilities and projects are developed to meet the needs of individuals who are not college students in the usual sense of the word.

So practical are these institutes that textile firms all through the Southeast are sending men every Summer to attend these sessions. Through study, these institutes have helped develop men for new and higher responsibilities.

While in Chapel Hill, the institute "students" experience a harder day than the average college student. They go to class from 8 a.m. to 3:30 p.m., taking a 30-minute break at 10 a.m. and an hour for lunch at 12:30 p.m. After class is dismissed, the "student's" time is his own. The tuition includes swimming privileges in the university pool, and provides for the institute "students" to have the same golf course privileges as regular students. They are housed in university dormitories in adjacent rooms, and you may find "bull sessions" going on of the brass-tacks variety, rarely indulged in by undergraduates.

A textile mill is best qualified to train its management personnel in those methods and problems particular to itself. But understanding and sound appraisal of the practices and policies of an individual firm can be increased by examining them against a background of general principles and the

practices of other mills. In the classrooms, actual business problems are used to illustrate and develop management principles. Movies and other visual aids are also employed.

A typical Summer gets underway with a two-day intensive conference on supervisory training, the first of the 1951 institutes conducted by Prof. Richard P. Calhoun, a specialist in supervisory training at the university. Two other of the 1951 institutes were conducted by Prof. John E. Dykstra, also of the School of Business Administration. The first of these was "Job Improvement Methods"; the later titled "Time Study," each lasting a week. The "Time Study" includes MTM, a recent development in Method-Time-Measurement which in many cases permits cost estimating and wage rate setting without the use of a stop watch.

In "Job Improvement Methods," Professor Dykstra states that through checking work flows, attempts have been made to improve methods in industry. Proposals have been made for improvement by re-arranging the machinery, working materials, and adding new machinery which would be more efficient. Job improvement study, as presented by Professor Dykstra, would cause people to recognize the many unseen inefficiencies in manufacturing.

In all types of manufacturing, there are many fatiguing methods that could, with little effort, be improved. The men who are now on the job learned their respective jobs by the method that was being used when they took over. Even if this method was bad, the new workman continued to follow the same method of producing because he knew no better way.

The main purpose of the "Job Improvement Method" study is to teach the manufacturers to take notice of the job methods, and to influence them to improve the methods used in their own mills. In most textile mills, there are several possible ways of job improvement. There are short cuts that can be taken, short cuts that have been overlooked by many old-time manufacturers. Short cuts of the proper type would not, by any means, mar the quality of the product, but would do away with unnecessary motion that is used in the production of many goods.

The manner in which some machines are set up causes the operator to take many unnecessary steps and make many uncalled for operations. By economizing on the motions that are made, much time is saved, efficiency is increased, and production is speeded up to a great extent.

The main trouble in inefficiency on the job, in most cases, is caused by the foremen. The mill foreman is not concerned with the time and steps required to do a job well. All that he is concerned with is the quality of the article being produced.

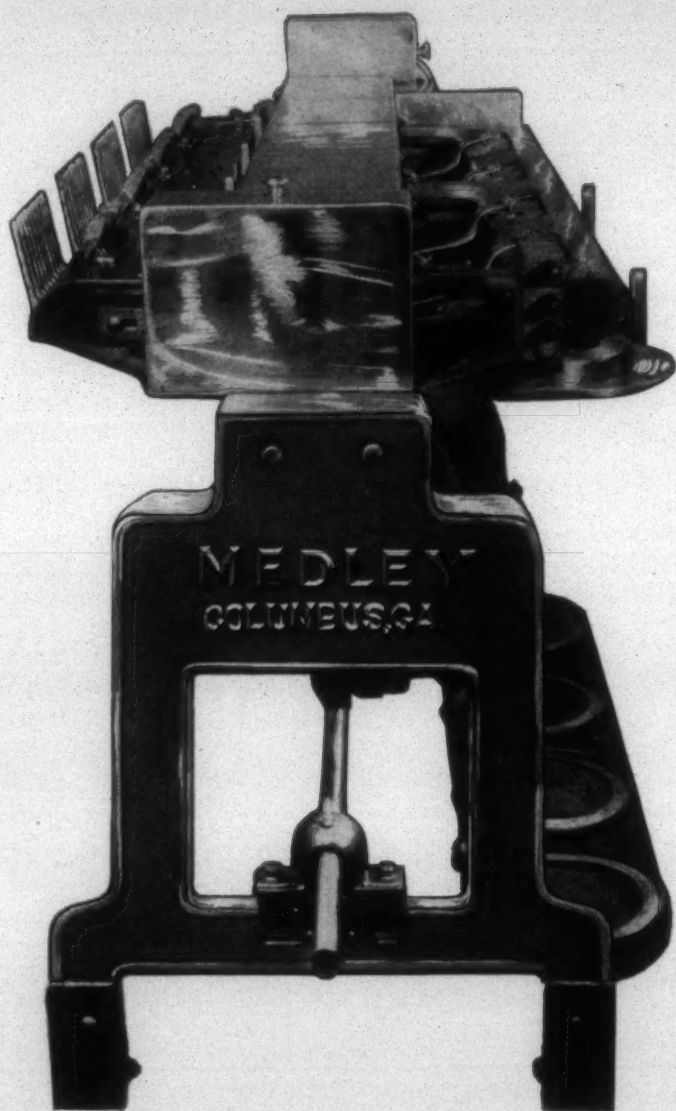
The topics covered by Professor Dykstra in "Job Improvement Methods" in the 1951 session were: "Nature and Objectives of Motion Study," "Scientific Approach to Job Study," "How Motion Study Can Contribute to Standardization," "Principles of Motion Economy," "Analysis of Common Methods of Job Improvement," "Process and Activity Charts including flow charts and diagrams, right and left-hand charts and man-machine charts and putting a work simplification program into effect." This course is taught for methods and standards men, time study men, and cost estimators.

"Time Study," Professor Dykstra states, "is to establish a fair day's work for a fair day's pay, the determining factor in the amount of work that a worker should do in a day;"



Among textile men attending the time study courses at Chapel Hill this Summer, were, seated, left to right: Roger Couch of Slater (S. C.) Mfg. Co., Cecil Thompson of Waverly Mills at Laurinburg, N. C.; John Geist of American Viscose Corp., Front Royal, Va.; and Grady Lyon of Glenn Mills, Lincolnton, N. C. Standing is Prof. John Dykstra, instructor of the class.

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to carry on a time study effectively, there should be a standardization of all conditions surrounding the work, such as materials, tools, machinery, workplace, and working conditions. Also there should be a standardization of method.

In time study, the selection of the worker to study is very important. It is customary to use an "average" man. The worker should be completely informed as to what is going on. If the objectives are not discussed with the worker, no accurate tabulation will ever be reached. The un-informed worker will sometimes change his method of work when time study is taking place. The time study efforts are fatal if this ever happens. After the worker has been observed, you now have what is known as normal performance, that is, that performance which would be given by a worker possessing average skill and working with normal performance.

"To have an accurate time study," Professor Dykstra adds, it is necessary to have a man who knows all the steps to take." The weeks training at the university does not make experts of the men attending, but it does enlighten them on the subject and probably leads to successful experimentation in their own mills.

Using MTM

Toward the end of the session, a recent development in Method-Time-Measurement, or MTM, was taken up. MTM was first practiced in 1948. Since that time, its popularity has increased considerably. The main principle involved is that the hands make only certain movements. These movements are lifting, moving, placing and adjusting a given article. Through much research and study, charts have been prepared to determine how much time is required to do a certain job. For example, moving a storage battery from one location to another requires the same amount of time required to move a paper bag the same distance, allowing a correction factor in the charts for the difference in weight.

By using MTM charts, executives may determine the exact time, in a matter of minutes at their office desk, required to do a certain job. For example, suppose a corporation was placing a bid on a large government contract, a job larger than this particular company had taken previously. The president of the company knew that his firm was capable of doing the job, but did not know how long it would take to complete the requirements of the contract. By the use of MTM charts and tables, the exact time of this large task was computed. Thus, by knowing the exact time required for the completion of the job, the bid was placed with more accuracy. By knowing the time required, lower bids may be placed with a minimum of risk.

"Supervisory training," Professor Calhoon says, "is the most important training a company has. The supervisors will either make or break a company. They are the final men in industry. The average supervisor in the nation had, on the average, two years of high school education, a figure which is high for the Southeast. This means that there is very little training in management. The only thing that this supervisor knows about manufacturing a certain article is what he has learned himself from experience or what someone else has taught him.

In most textile mills, the supervisors are picked from the men in the ranks. These men have received, in most cases, no personnel relations training whatsoever. All that

he knows about personnel problems is knowledge that he has picked up through experience. Supervisors need training in handling people. It is necessary that they have something other than on-the-job training."

During the two-day intensive conference, the topics that are discussed are the area of supervisory training, its needs, and the training plan; types of training areas; groups to be trained; visual aids and their use; sources for assistance in training; and the training methods, including conference method of supervisory training, role playing as a training device, and the case method of supervisory training. This institute is for the training of directors, personnel officers and all executives whose responsibilities include training and instructing first line supervisors.

Practical Professors

The question may be asked, "How can a university professor train men who are on the job ray after day and should know the work better than anyone else?" The question is a good one and one that comes to the minds of almost everyone when industrial institutes are cited.

Throughout the year, bulletins and magazines are received by the university telling ways by which other corporations or companies have increased their efficiency. Through careful study of these bulletins, the instructors are able to gather the most modern and the most efficient methods of doing a job. And too, the men who are teaching the courses are not by any means, green horns.

Prof. Rex Winslow of the economics department in the School of Business Administration, director of the institutes, returned in 1945 from wartime service with the War Production Board to take the institutes in hand. He is now director of the Bureau of Business Services and Research, a function of the School of Business Administration.

At the University of North Carolina, Professor Calhoon specializes in supervisory training. Before coming to the University, he was personnel officer with Kendall Mills and U. S. Rubber Co., author of the books, "Moving Ahead on Your Job," and "Problems in Personnel Administration." Since 1946, when the institutes first began at the University of North Carolina, Professor Calhoon has been instructing classes in personnel administration, interviewing, and supervisory training.

Prof. Dykstra is a specialist in industrial management at the university. Prior to this, he was a member of the faculties of the University of Missouri and the University of Kansas. His business experience includes work with Dennison Mfg. Co., as a methods training consultant, and service with Dan River Mills, Roanoke and Patterson Mills, and other companies.

To those attending the institutes, they are economical. Institutes are non-profit public service projects. Members share in many of the free facilities and services provided by the State of North Carolina and private benefactors. By employing the principle of pooling expense the institutes allow each company, for a modest tuition (ranging from \$20 to \$40 a week), to secure instruction of a quality which would be too expensive on a single-company basis.

An American surgeon in 1800 devised a harness for reeling silk from spider webs, but gave up when he found that the output of 450 spiders would yield only a yard of goods.

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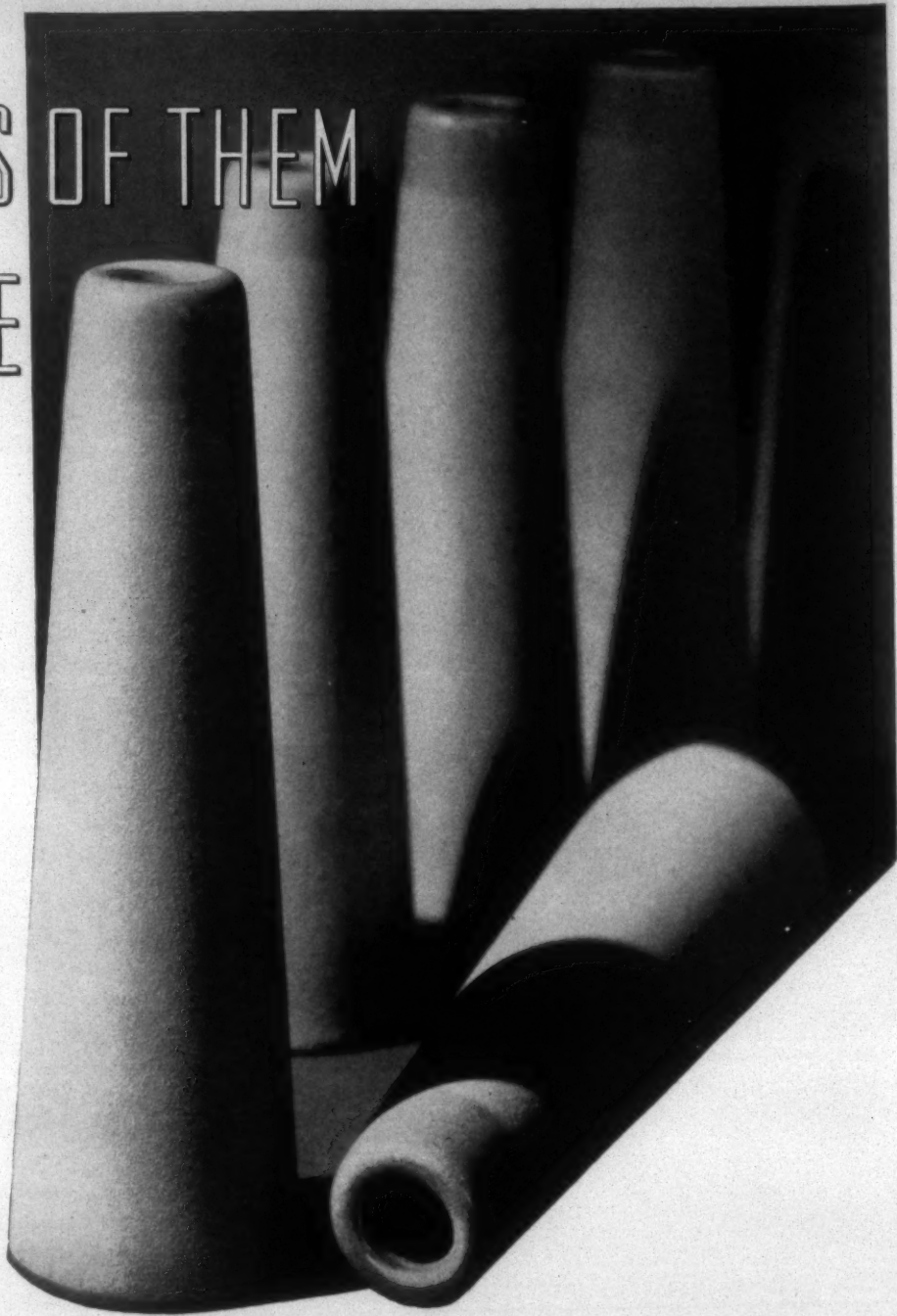
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THE MILL OF TODAY

By ROBERT Z. WALKER

Part 26, Section B — Production Limitations of Roving Frames

TO OBTAIN maximum performance the mill must be equipped with frames which will have a high potential production, will produce high quality sliver, and which will be economically advantageous insofar as work loads and efficiency are concerned. In addition, the size of the roving frame must conform to creel dimensions of the spinning frame for which the roving is intended.

The gauge of the roving frame has a direct bearing upon the fineness, and also the coarseness of the roving which may successfully be made upon it. The larger gauge frames are not satisfactory for finer rovings for mechanical reasons; the distance from the rolls of the drafting system to the flyer is too great and puts too much strain upon the strand of partially twisted fibers, the hole in the nose of the flyer is too large to maintain control upon the roving as it is twisted, the slot in the hollow leg will be too wide, and the tension exerted by the presser paddle and the paddle balance arm will be too heavy. The standard recommended practice today is to make hank roving heavier than 1.00 on a 12x6 frame, from 1.00 hank roving to 1.50 hank on a 11x5½ or 10x5 frame, from 1.50 to 3.00 hank roving on a 10x5 frame, and over 3.00 hank on either a 9x4½ or 8x4 frame. On the very fine counts of hank roving which are generally not necessary today with long draft systems, the frame size may have to be a 7x3½ gauge machine.

• The coarseness of the roving that may be made on a specific frame is not so much dependent upon machine ability, as it is upon economic factors. By this it is meant that it is not good practice to make roving on a given gauge frame of smaller dimensions than is mechanically necessary. For instance, if the roving may be made on a 10x5 frame, then it is not economically feasible to make this count on a 8x4. In this case, the heavy roving will fill up the bobbin too rapidly and will require too frequent doffing. Doffing cycles are probably the most important factor in determining machine efficiency and acceptable practical work assignments. When the frames require frequent doffing, work loads may have to be decreased and machine efficiency will drop. In addition, the efficiency of the spinning room will also be reduced and work assignments decreased as the roving in the creel will become exhausted and require re-creeling more frequently.

In planning a new mill, or in determining the specifications for new roving frames in a present mill, the selection of the roving frame which will most closely fit all of the required conditions is probably one of the most complex problems to be solved in the spinning mill. The first fact which must be known is the ring size and gauge of the spinning frame for which the roving frame will make

roving. If the yarn is to be for warp, then the count of yarn is important as the ring size will be suited to fit the strength of the count. If the yarn is to be filling, then the dimensions of the bobbin chamber of the loom will determine the ring size of the frame. In either case, the ring size is important, as it dictates the size of the gauge of the spinning frame. The gauge of the frame is necessary in order to plan that the diameter of the roving bobbin will fit into the creel. In addition, the count of the yarn will determine whether or not it will be necessary to use double roving in the creel or if single roving will be satisfactory. The recommended practice today, using modern frames with long draft for both roving and spinning, is to take advantage of the superior fiber control of these systems and to use double roving in the creel only for yarns finer in count than 30s. Many yarns of 30s and above are made by single roving, but the general consensus is that double roving will aid in producing more even and stronger yarn above this count.

The gauge of the spinning frame, and whether or not double roving will be used, will determine the size of the roving bobbin that will fit the creel, and thus will almost automatically specify the gauge of the roving frame that will be most suitable. It must be remembered that it is in the interest of efficiency and high production to use the largest package that can be fitted into the spinning creel. In some mills, the use of larger packages than standard is accomplished by creeling in half of the spinning frame at a time. If there is not enough room to hold full roving bobbins for every spindle of spinning, then every other spindle is creeled in at a time. When these original bobbins are used to the point that they are at one-half their original diameter, then the alternate spindles are creeled, using full bobbins. By this method, there is one full and one half-full bobbin used supplying every two adjacent spinning spindles, and therefore a larger roving bobbin may be used. However, this method requires giving more attention to creeling and is more likely to give trouble and create more waste in the form of roving left on the bobbin. After a time, the system gradually deteriorates so that the spinners have difficulty in keeping the creel full without encountering interference in the form of having to creel two adjacent spindles at the same time when there is not sufficient space to do so. If the mill is to be based on sound engineering design and methods, it is dangerous to found the basis of machinery selection on the use of such methods.

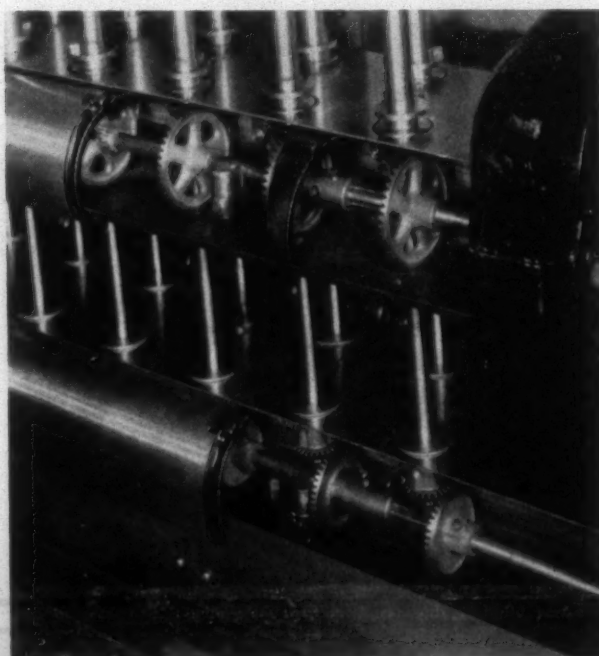
The following table tabulates maximum size roving bobbins that may be used in a standard spinning frame creel. Note that this problem of bobbin size has been partially

overcome by the use of two-story creels, so that only one-half of the bobbin must be creeled together in one area.

MAXIMUM SIZE OF ROVING BOBBIN IN SPINNING CREEL

Gauge	Two-Story Double Roving	Two-Story Single Roving	One-Story Single Roving
2¼	7x3½	9x4½	7x3½
2½	8x4	9x4½	8x4
2⅝	8x4	10x5	8x4
2¾	8x4	10x5	8x4
3	9x4½	11x5½	9x4½
3¼	9x4½	12x6	9x4½
3½	9x4½	12x6	9x4½
3¾	10x5	12x6	10x5
4	10x5	12x6	10x5
4¼	10x5	12x6	10x5
4½	11x5½	12x6	11x5½
5	11x5½	12x6	11x5½
5½	12x6		12x6

It is logical to assume that satisfactory roving will be produced and maximum production attained for the average mill when the spindle speed of the roving frame is exceeding neither the spindle speed recommended for the gauge of frame being used, nor at a speed so high that the front roll must be operated higher than 600 inches per minute, in order to maintain the proper twist in the hank roving. However, it should be remembered that lowered costs per pound of yarn produced, and higher rates of production per spindle, may be obtained by mills operated and managed by intelligent, hardworking technicians, who strive to extract the greatest possible over-all efficiency from the equipment at hand. In such a mill the above limits may be relaxed somewhat and both higher machine speeds and higher front roll speeds may be attained without harmful effects upon either equipment or product.



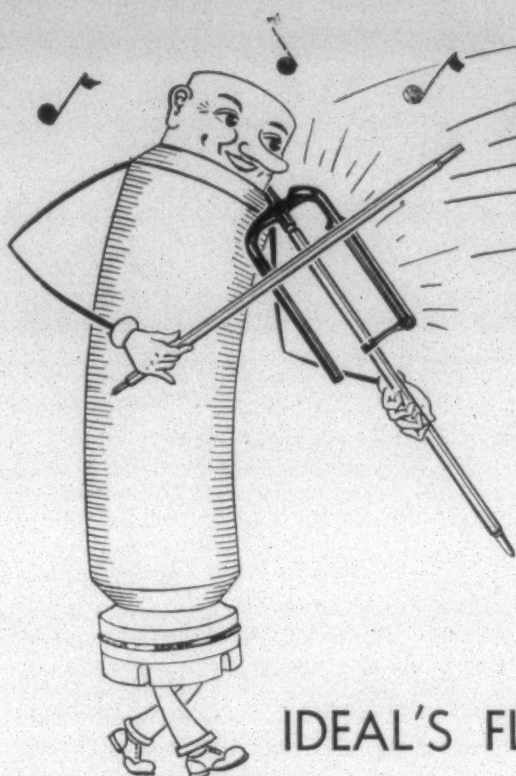
Bobbin gears and spindle gears must mesh correctly to build perfect bobbins.

In a mill such as this, and there are a number in this country, the performance and maintenance of the machinery will be subjected to constant examination and checks. If the frames are to run at speeds higher than those recommended, it will be necessary to keep the frames in a state of perfect condition. The oiling periods will have to be increased, and it will be the responsibility of management to assure that the oilers are not neglecting any of the more difficult inaccessible oiling points. The frames will have to be subjected to a periodic overhaul with particular attention paid to keeping the frames in perfect alignment and absolute level. Gears will have to be set so that they are in correct mesh, and shafts must be plumbed true so that they are supported in their bearings without binding. The cone belt, in particular, will have to be checked constantly and removed whenever it becomes worn and starts to slip or to flatten out and ride over too great a surface of the cone.

In order for the frame to operate smoothly and to keep down the required replacement parts, every sub-assembly of the entire frame will have to be correctly adjusted and in good condition. Whenever gears are worn or bearings are tight, the resultant binding will accelerate wear and will destroy the smooth operation essential to maintain quality. At high speeds any erratic motion of the frame will have a much greater effect in stretching roving than when the lower speeds are used.

Probably the most important part of the frame under these high speed conditions is the flyer. The flyer is a seemingly simple assembly but it is actually complicated in design, and particularly in construction. Although the flyer appears to be composed of two parts, the legs and nose, and the presser assembly, it actually is made up of a number of steel parts which have been electrically welded together. The weight of the presser and the presser leg were calculated to exert a certain force at definite speeds. The presser paddle is balanced by the presser leg so that it will maintain a constant pressure on the roving as the bobbin builds up. The slot in the hollow leg is held to a very close tolerance in width, and this is predicated upon at the behavior of roving at set speeds. However, the most essential check which must be made on the flyer is that it remains balanced at the speeds under which it is run. For many years, the speed of the roving frame was limited by the fact that the centrifugal force generated by the flyer in motion would spread the flyer legs. This would throw the flyer off balance and would cause vibrations that were ruinous to the evenness and strength of the roving produced. One of the reasons why higher frame speeds are possible today is that flyers are made from special steel which will more successfully resist this centrifugal force, and will remain in their true shape under the greater centrifugal force in effect at the increased speeds. Therefore, when the mill speeds up a roving frame a very close check must be made frequently to observe if the force is distorting the flyers. When the flyers are seen to be beginning to vibrate and become out of balance, the speed should be reduced to a point well below the dangerous critical excess.

The other spindle speed limitation, front roll speed, may be exceeded more safely than can machine speed. The injurious effects of higher over-all machine speeds are not as readily apparent, and may take the form of costly repairs because of machine damage. However, when the drafting element is simply speeded up, the damage will usually be evident at once in the form of weak roving and uneven



TUNE UP

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You don't wait until your automobile breaks down. You keep it in good running condition with periodic tune-ups—because it pays! *It pays with flyers too!*

Ideal Machine Shops' FLYER TUNE-UP SERVICE is a complete package of all the conditioning services needed to put a normal flyer (not in need of major repairs or rebuilding) in tip-top operating condition.

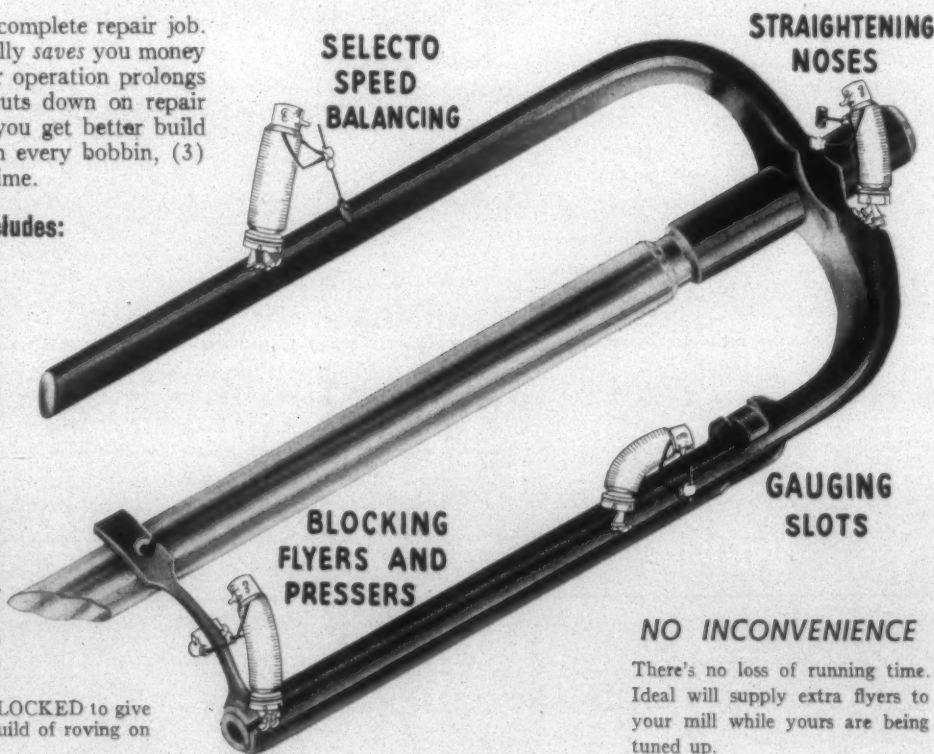
IDEAL'S FLYER TUNE-UP SERVICE

Cost is small compared to a complete repair job. In fact, Flyer Tune-Up actually *saves* you money in these ways: (1) Smoother operation prolongs life of flyers and spindles, cuts down on repair and replacement costs, (2) you get better build and more uniform quality on every bobbin, (3) you reduce expensive down-time.

Ideal's Flyer Tune-Up Includes:

- **SELECTO-SPEED BALANCING***, an exclusive Ideal process, balances every flyer at the exact running speed specified by your mill. By having every flyer on your frame balanced at the same speed—the speed of the frame—you get the smoothest, steadiest flyer operation known today.
- **NOSE STRAIGHTENING**, a newly-developed Ideal service, presses off-center flyer noses into perfect alignment with barrel and spindle, eliminating the jerking motion which causes thick and thin places in roving.
- **SLOT GAUGING**—Flyer slots adjusted to your specified hank roving.
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Don't wait until your flyers *demand* repair. Start now on a regular schedule of periodic flyer tune-ups. See our representative, or write us for full details.



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*Patent applied for

27TH YEAR OF CONTINUOUS SERVICE TO TEXTILE MILLS

roving. The possibility of mechanical damage is more remote with respect to comparatively simple and inexpensive mechanisms. When the front roll speed is held above the conservative figure of 600 inches per minute of surface speed, it would be well to institute more frequent laboratory tests on both the roving and the yarn. The twist in the roving would be checked as well as the size; while the yarn should be tested for evenness, size and breaking strength. The drafting assembly will have to be inspected more frequently to assure against a gradual drop in operation and fiber control qualities. As higher speeds are to be assumed, the rolls should be oiled more frequently to prevent wear. The rolls, both top and bottom, will be called upon to exert every possible amount of fiber control and therefore must be maintained in perfect condition. There will be a greater tendency for lap-ups to form and so the bottom steel rolls must be scoured and polished to keep them smooth, concentric, and free from nicks or from flutes having dirt and waste impacted between them. The top rolls must be re-buffed whenever wear is seen, as a concave surface of the roll will allow the fibers to slip forward under reduced pressure—this will cause the loss of control that will force the speed to be reduced. The pressure or weighting system should be inspected at intervals to assure that the correct springs or weights are used, and that there is not any binding of hooks to reduce the pressure on the rolls. If the weighting is not sufficient the fibers will pull forward out of position, and the capacity of the drafting element will be lowered so that the quality of the roving will not be satisfactory.

As higher speeds will probably result in some loss of fiber control, there is a distinct possibility that the amount of fly and clearer waste will increase proportionately. If

this waste is allowed to accumulate, it will pass forward through the rolls to form bunches which will create an efficiency loss in the form of ends down at the roving frame or the spinning frame, and which will also create uneven roving. Therefore, it will be necessary to use top rolls which will have a rough surface to prevent eyebrows forming too quickly and the use of clearers have clearer cloth in a condition to hold the fly until the clearers are picked clean.

One of the main reasons for the formation of excessive eyebrows is that the top roll surface does not have sufficient fiber gripping ability to carry the loose stray fibers, in the form of fly, up under the clearer. These fibers will be carried up until they are stopped by the edge of the clearer, or other fibers already at the edge, and then slide over the surface of the top roll to build up the accumulation called eyebrows. A rougher surfaced synthetic with fiber gripping ability will pull these same fibers up under the clearer, and when the surface becomes worn, it is a simple and inexpensive matter to rebuff the roll and bring it back to its original condition.

The clearers must be covered with a napped clearer cloth that will retain the added amount of fly produced by the high speeds needed for gaining the ultimate in production. This cloth must be replaced whenever it loses its ability to gather and hold fly. The cleaning schedule will probably have to be revised to permit more frequent picking of the clearers to prevent clumps of waste from dropping into the sliver to form slubs in the roving and either broken ends or slubs in the yarn. Therefore, it can be seen that the higher speeds may be responsible for higher costs in the form of increased replacement of roll covering and clearer cloth, and in the form of more labor necessary for increased maintenance and cleaning.

It can be seen from this brief outline that the limits most commonly accepted can be exceeded without a deterioration in roving quality. However, it is also readily apparent that the use of higher speeds require equipment maintained in perfect working condition and controlled and maintained by personnel willing to take the time and effort to assure this condition. To offset the added product gained there must be considered the possibility of needing to purchase more replacement parts, and the necessity of employing the type of men willing to keep a conscientious check upon all of the pertinent points which are important in producing high quality roving over a long period. Today, under highly competitive conditions of a tight market, the higher production per spindle may be highly significant, when coupled with similar moves in production speeds throughout the remainder of the mill.

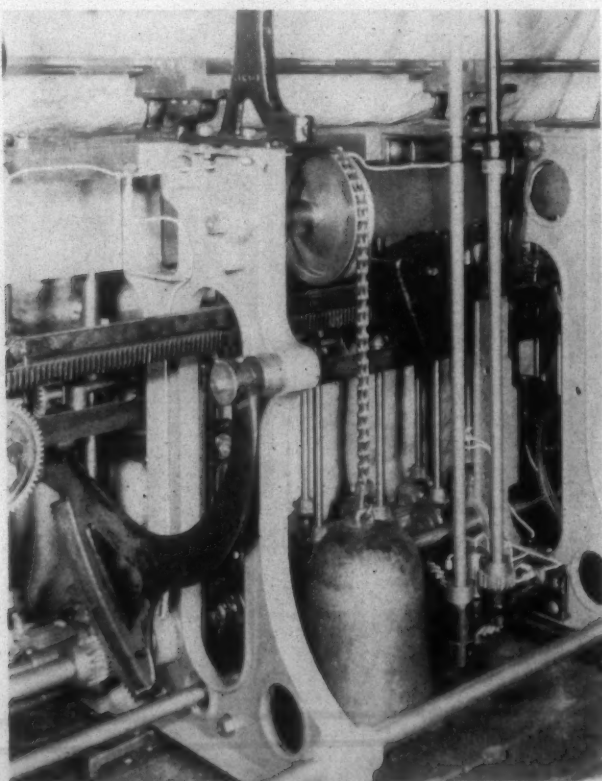
Asbestos is the only mineral that consists of fine, spinable fibers.

John Mercer, an Englishman, discovered in 1844 the method of strengthening cotton by 20 per cent and giving it a silk-like sheen, a process still called mercerization.

Thread, made by twisting fibers together, was used by the Swiss Lake Dwellers 25,000 years ago.

Henry VIII had the spinning wheel brought to England from India, thus replacing the distaff and spindle.

Poplin cloth manufacture originated in France and was brought to England by the Huguenots.



Maximum speeds of roving frames demand constant maintenance, sufficient lubrication and well-fitting parts.

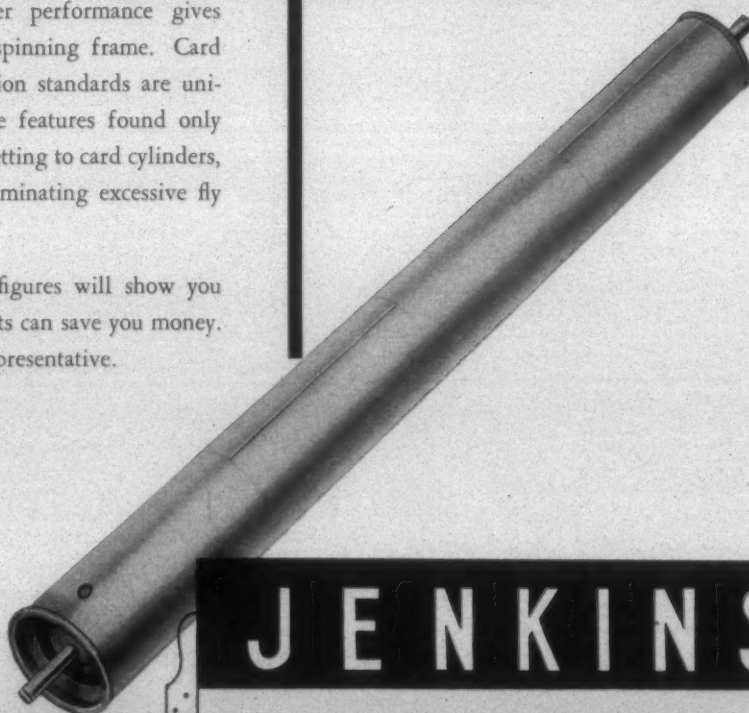
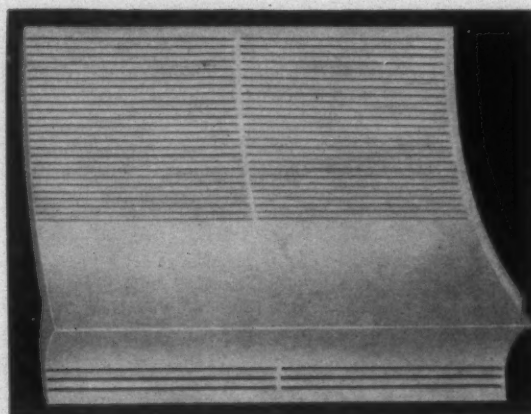


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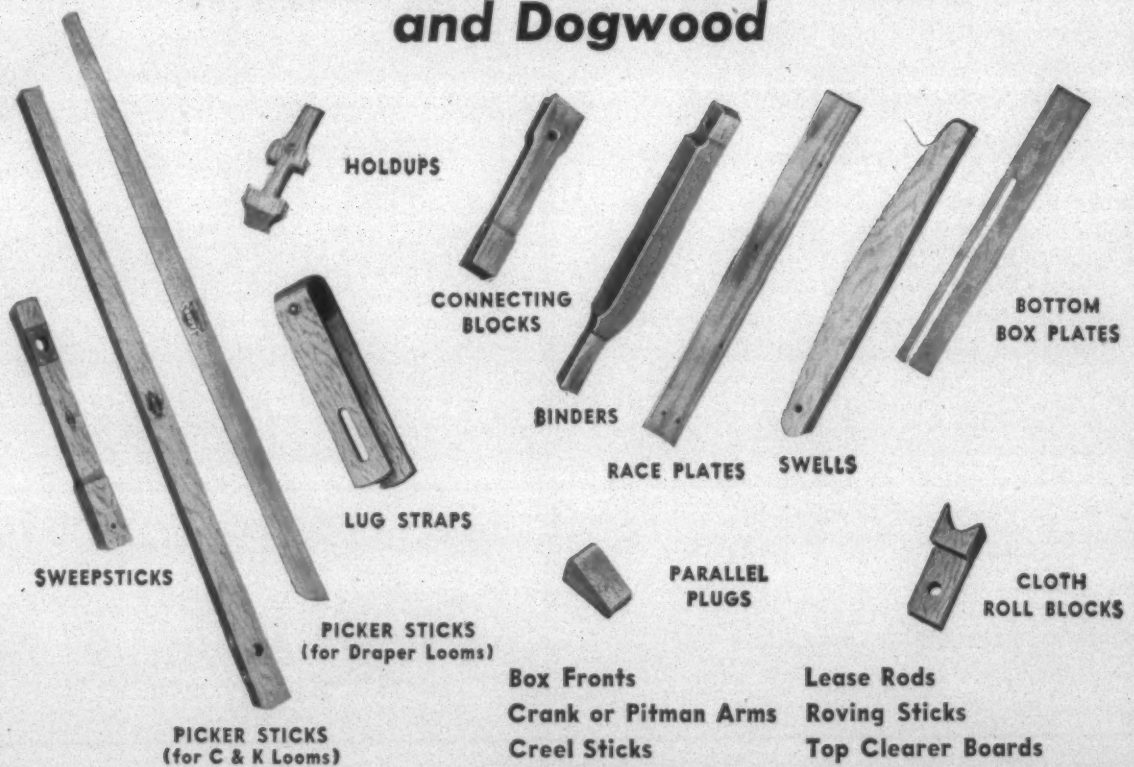
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Warp Preparation & Weaving

SO YOU WANT GOOD CLOTH!

By FRANK D. HERRING

Part 27 — Fabric Imperfections

IN THE forthcoming articles it is my intention to deal solely with imperfections in cloth, their causes, and ways and means of controlling them. First, the overseer of weaving should know at all times just what types of imperfections constitute the seconds being made, and then he should have a constant follow up or checking system that will get something done about it on the individual looms which are making the seconds. Of course over-all responsibility for results from any department should rest with the overseer of that department, and he in turn must divide and place responsibility for certain things on different individuals under his charge, or jurisdiction. It is the overseer's responsibility to have the looms fixed and also see to it that the weaver is given warp and filling yarns that good cloth can be made from, and then in the final analysis the weaver should and must be held responsible for imperfections, or seconds, from his or her stand of looms.

However reasonable and just exceptions should be made for the weaver in cases where the imperfections in the cloth are entirely beyond his control, such as bad sizing, uneven or gouty yarn, etc., and deductions should be made from the weaver's total weekly yardage of seconds. The weaver should be shown the bad cloth made on his looms caused by imperfections which are not beyond his control, and he should be penalized for excessive percentage of seconds. This can be done, easily and fairly, by putting the weaver's pay rate per pick on an incentive basis. The base pay should be established on a percentage basis of seconds and also production. For instance, using arbitrary figures, fix the basis rate on a range from two to three per cent seconds, and from 94 to 95 per cent production, and then increase or decrease the base rate as these base figures go up or down. This sounds rather complicated, but it is not unless the mill is making a number of widely varying styles of goods, and in this event the number of looms contained in a weaver's stand should be determined by the number of loom stops per hour.

The fixer's pay should also be based on efficiency basis, the determining factors being total production and seconds produced in his section. This will promote a much closer co-operation between the weaver and the loom fixer, because it opens up a way for both of them to make more money by so doing. Material gain appeals to all of us, and if ways and means are provided for us to make more money by giving a little more effort we will do so more readily. However, the really deserving employee, the one who deserves getting ahead, is the one who strives continuously to do the job better because of the inherent satisfaction he derives from being able to look back and believe that he has contributed something towards the betterment

of the job and the well being of all parties concerned. Good wages of course are an incentive for the employee to want to hold his job, but dollars alone will not give the employee the incentive he must have for full and complete co-operation with all parties involved in the organization, from top to bottom. They must be made to feel that they belong, and their efforts are appreciated; some will give these efforts freely, some must be encouraged and directed and made to see and fully realize things as they are. One point I am trying to emphasize is that full and complete co-operation must be obtained between the weaver and the loom fixer if top efficiency is to be secured.

Of course every effort should be made to train the weaver when *not* to run a loom, or when it is making bad cloth, but it is possible for a loom to be making seconds, especially mispicks, and the weaver not know about it. This makes it necessary to have some kind of quick follow-up system whereby the weaver will be made aware of the fact that such and such a loom is producing bad cloth. I have used the following system with very satisfactory results. Furnish the inspectors in the cloth room with forms, about three inches wide, containing entries covering the average run of defects in the cloth. The inspector should put a check mark opposite the entry on the form which is the cause of the defective cloth, and this report should then deliver immediately to the overseer of weaving or whoever is designated to do the following up in the weave room. The printed inspector's report is shown in Fig. 90. In order to complete the follow-up on the individual looms making the seconds, a weave room second sheet should be provided, this sheet is shown in Fig. 91.

The weave room second sheet, or sheets, should contain all the loom numbers in the weaving department. The cut, or pick sheets ordinarily used can be used for this purpose. When the inspector's report is sent to the weave room the person designated to handle this work should make an entry on the weave room second sheet opposite the loom number making the seconds, then the inspector's report should be shown to the weaver, and then given to the loom fixer, or someone capable of checking and fixing the loom. By showing the inspector's report to the weaver it will enable him to keep close watch on that individual loom to determine if it has been fixed. It will also give the weaver a chance to see, and keep up with, his total yardage of seconds for the week.

If the above system is followed daily, and correctly, it will enable the overseer or anyone else to determine quickly the individual looms on the job which are making the seconds. It is usually surprising to learn just how small a percentage of the looms is making a big majority of the

WARP PREPARATION & WEAVING

seconds. These looms which are making the seconds from day to day will soon stand out on the second sheet like sore fingers, and someone will do something about it, and that is just what we are trying to do—outline a workable plan of procedure that will get the job done, and quick.

Very often, after making an honest effort, the loom fixer will fail to get a loom fixed after he has been given the inspector's report. In this event the loom will be a repeater. As shown in Fig. 91, loom number one indicates repeating on kinky filling, and loom number three repeating on mispicks. When this happens the overseer should have some capable man give these looms a complete going over, and

INSPECTOR'S REPORT

Inspector No. _____	
Date _____	
Style _____	
Loom No. _____	Yards _____
No. 1—Mispicks _____	
2—Thin places _____	
3—Jerked in filling _____	
4—Roped off filling _____	
5—Kinky filling _____	
6—Mixed filling _____	
7—Breakouts _____	
8—Uneven cloth _____	
9—Misdraws _____	
10—Reed mark _____	
11—Bad selvage _____	
12—Overshots _____	
13—Undershots _____	
14—Oil stain _____	
15—Hard size _____	
16—Slack selvage _____	
17—Slack warp _____	
18—Strings on selvage _____	
19— _____	
20— _____	
Remarks _____	
Total yards seconds _____	

Fig. 90.

WEAVE ROOM SECOND SHEET

Loom No.	
1	5-5-5-5-5x _____
2	_____
3	1-1-1 _____
4	_____
5	_____

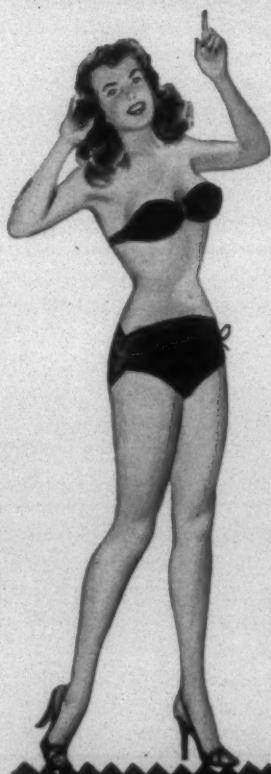
Fig. 91.

overhauling if necessary, and when this is done an X mark should be made opposite the entry number, as shown in Fig. 91, loom number one, to indicate that this work has been done. This procedure will keep someone continually after these bad looms, and pretty soon the troubles will begin to clear up and the seconds will go down, and down. My experience has been that too many weave room overseers are prone to let up, get careless when seconds get down to a low figure, but when this happens they will jump back up pretty soon unless a daily check up on the bad looms is followed.

Mispicks and thin places constitute a large percentage of the seconds in cloth woven on automatic looms. In reality, a mispick is a small thin place. When the shuttle passes from end to end of the lay, between the warp sheds, and fails to lay the strand of filling apart, or all the way across, for one pick, we refer to this defect or break in the weave as a mispick. When the shuttle passes from end to end across the lay for more than one pick and fails to lay the strand of filling, we refer to this defect as a thin place. In either event the filling yarn must be broken, or the filling yarn bobbin depleted of yarn, run empty. It is possible for a loom to make a mispick without the loom being out of fix, because sometimes the filling yarn will break, due to defective yarn, while the shuttle is on its passage and leaves a trailing end of filling, and this trailing end will become entrapped between the warp sheds and the filling fork will have no chance to stop the loom off. But this happens so seldom that it is not a troublesome item, unless the filling yarn is exceedingly bad.

To stop a loom from making mispicks, proceed as follows and check the things mentioned in the order named. First things first again. (1) Shuttle boxing. Start the loom and make sure that the shuttle is boxing properly in both boxes. If the shuttle is bouncing or failing to go all the way up in the box on the shipper handle end of the loom it will allow the filling feeler to contact the bunch on the filling bobbin, and this will cause all the yarn to run off the bobbin instead of the bobbin being ejected before the yarn comprising the bunch is depleted. Sometimes, when the filling bobbin is allowed to run empty, the last of the yarn will run off the bobbin when the shuttle is in the left-hand shuttle box, and in this event there will be a strand of filling in place to raise the filling fork and prevent the stopping of the loom, and filling feeler will contact the empty bobbin and put the transfer mechanism in operation and transfer a full bobbin into the shuttle, but the shuttle will have made the trip from the left-hand box to the right-hand box without the strand of filling being laid, and a mispick is the result. It is vitally necessary for the shuttle to be boxing properly in both shuttle

Pick o' the picker crop.



The Dayton Thorobred Pickers

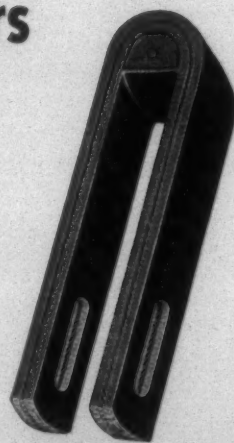
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The Super Picker is one of the finest pickers in the world today, and will outpick any ordinary picker on the market.

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seconds. These looms which are making the seconds from day to day will soon stand out on the second sheet like sore fingers, and someone will do something about it, and that is just what we are trying to do—outline a workable plan of procedure that will get the job done, and quick.

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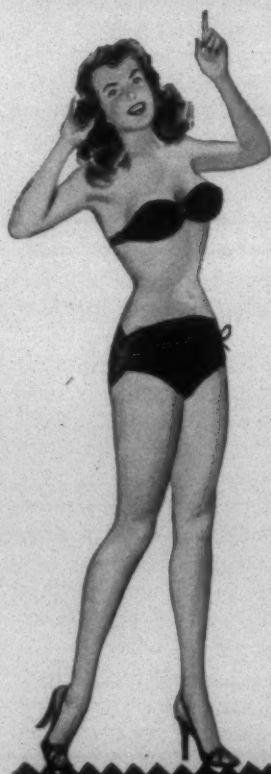
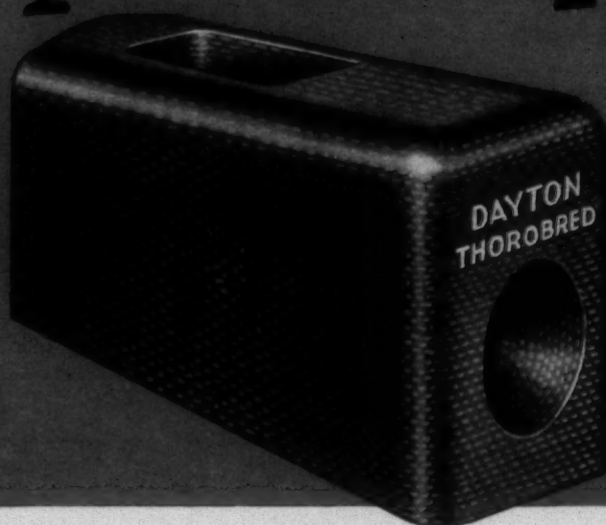
Fig. 91.

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Mispicks and thin places constitute a large percentage of the seconds in cloth woven on automatic looms. In reality, a mispick is a small thin place. When the shuttle passes from end to end of the lay, between the warp sheds, and fails to lay the strand of filling apart, or all the way across, for one pick, we refer to this defect or break in the weave as a mispick. When the shuttle passes from end to end across the lay for more than one pick and fails to lay the strand of filling, we refer to this defect as a thin place. In either event the filling yarn must be broken, or the filling yarn bobbin depleted of yarn, run empty. It is possible for a loom to make a mispick without the loom being out of fix, because sometimes the filling yarn will break, due to defective yarn, while the shuttle is on its passage and leaves a trailing end of filling, and this trailing end will become entrapped between the warp sheds and the filling fork will have no chance to stop the loom off. But this happens so seldom that it is not a troublesome item, unless the filling yarn is exceedingly bad.

To stop a loom from making mispicks, proceed as follows and check the things mentioned in the order named. First things first again. (1) Shuttle boxing. Start the loom and make sure that the shuttle is boxing properly in both boxes. If the shuttle is bouncing or failing to go all the way up in the box on the shipper handle end of the loom it will allow the filling feeler to contact the bunch on the filling bobbin, and this will cause all the yarn to run off the bobbin instead of the bobbin being ejected before the yarn comprising the bunch is depleted. Sometimes, when the filling bobbin is allowed to run empty, the last of the yarn will run off the bobbin when the shuttle is in the left-hand shuttle box, and in this event there will be a strand of filling in place to raise the filling fork and prevent the stopping of the loom, and filling feeler will contact the empty bobbin and put the transfer mechanism in operation and transfer a full bobbin into the shuttle, but the shuttle will have made the trip from the left-hand box to the right-hand box without the strand of filling being laid, and a mispick is the result. It is vitally necessary for the shuttle to be boxing properly in both shuttle

Pick o' the picker crop.



The Dayton Thorobred Pickers

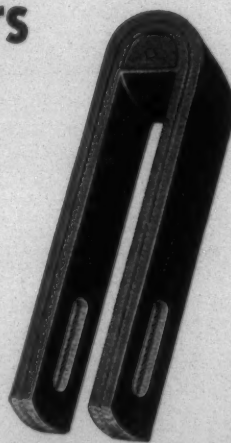
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Both incorporate improved design features, such as rounded front edges that eliminate hanging filling; narrow back that permits free non-wear on lay-in strap; flared bottom that makes picker stick easier to apply. Because they outlasted others two to one, they often cut down-time in half, increased cloth production. Made shuttles last longer, too, because the pickers run cooler. Can be used for high-speed and standard speed looms.

The Super Picker is one of the finest pickers in the world today, and will outpick any ordinary picker on the market.

Pick of the peach crop are the young women that fill out the bathing suits and other wearing apparel that Dayton products help manufacture.

DAYTON RUBBER COMPANY, DAYTON 1, OHIO



THE GREAT "BIG LUG"

This is the lug strap—the Dayton Thorobred Deluxe—that in recent tests reported with three other types of strap, outlasted every one. Built-in cushion protects cam points and picker sticks. Unaffected by temperature and humidity changes.

Dayton Rubber

seconds. These looms which are making the seconds from day to day will soon stand out on the second sheet like sore fingers, and someone will do something about it, and that is just what we are trying to do—outline a workable plan of procedure that will get the job done, and quick.

Very often, after making an honest effort, the loom fixer will fail to get a loom fixed after he has been given the inspector's report. In this event the loom will be a repeater. As shown in Fig. 91, loom number one indicates repeating on kinky filling, and loom number three repeating on mispicks. When this happens the overseer should have some capable man give these looms a complete going over, and

INSPECTOR'S REPORT

Inspector No. _____	
Date _____	
Style _____	
Loom No. _____	Yards _____
No. 1—Mispicks _____	_____
2—Thin places _____	_____
3—Jerked in filling _____	_____
4—Roped off filling _____	_____
5—Kinky filling _____	_____
6—Mixed filling _____	_____
7—Breakouts _____	_____
8—Uneven cloth _____	_____
9—Misdraws _____	_____
10—Reed mark _____	_____
11—Bad selvage _____	_____
12—Overshots _____	_____
13—Undershots _____	_____
14—Oil stain _____	_____
15—Hard size _____	_____
16—Slack selvage _____	_____
17—Slack warp _____	_____
18—Strings on selvage _____	_____
19— _____	_____
20— _____	_____
Remarks _____	_____
_____	_____
Total yards seconds _____	_____

Fig. 90.

Loom No.	
1	5-5-5-5-5x _____
2	_____
3	1-1-1 _____
4	_____
5	_____

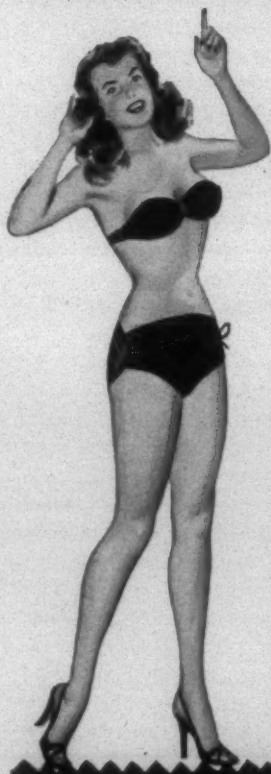
Fig. 91.

overhauling if necessary, and when this is done an X mark should be made opposite the entry number, as shown in Fig. 91, loom number one, to indicate that this work has been done. This procedure will keep someone continually after these bad looms, and pretty soon the troubles will begin to clear up and the seconds will go down, and down. My experience has been that too many weave room overseers are prone to let up, get careless when seconds get down to a low figure, but when this happens they will jump back up pretty soon unless a daily check up on the bad looms is followed.

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Pick o' the picker crop-



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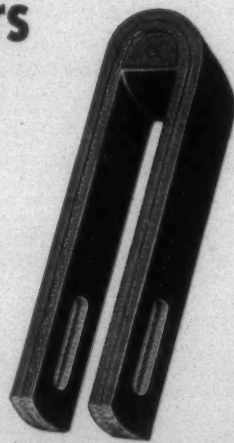
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WARP PREPARATION & WEAVING

boxes, as mispicks can result from improper shuttle boxing on the battery end of the loom same as on the filling feeler end.

While boxing the shuttle the pickers should be checked, as the shuttle cannot be boxed properly unless the pickers are properly placed and parallel. If the picker is too high on the filling feeler end it will allow the shuttle to rise in the box and the filling feeler will strike the bobbin in the shuttle below the center point, and this will wedge the feeler and prevent the free sliding action which is necessary to prevent all the yarn from being run off the bobbin, and of course causing mispicks to be made. Also if the shuttle rises in the box the filling feeler will strike the shuttle wall at the bottom of the filling feeler slot and this will cause the filling feeler to fail to work properly and run the filling bobbin empty.

(2) The shuttle. Of course the shuttle should be examined before it is boxed, and if it is damaged or excessively worn it should be replaced. Place an empty filling bobbin in the shuttle and make sure that it is held tight by the shuttle spring and pointing straight, or in line in the shuttle. The filling feeler cannot function properly if the bobbin is loose or out of line, and this will cause all the filling yarn to be run off the bobbin, at times, and make mispicks. See that all the bristles or frictions are in the shuttle, and properly placed. A bristle placed too high or too low will cause filling breakage, and filling breakage will make mispicks.

(3) The filling feeler. The entire filling feeler mechanism should be checked, because all these parts are designed to operate on split second timing, and some of the adjustments might be off just enough to fail to function properly, and occasionally run all the yarn off the bobbin.

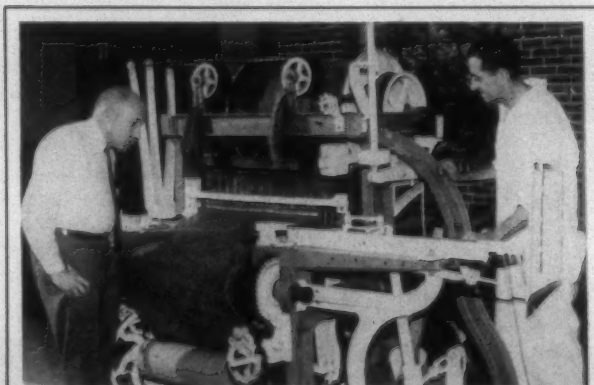
(4) Temples, and temple straps. Turn the lay to front center position and make sure that the ends of the temple bars clear the reed at least one-eighth to one-fourth of an inch. At the same time examine the tip ends of the thread cutter knives, on right-hand temple, and make sure they are drawn in flush with the end of the temple bar. The temple straps are attached to the lay and they contact the heel of the temple bar and also the heel of the thread cutter knife as the lay comes to front center, and this

action is supposed to draw the temple bars and the temple knife clear of the reed, but when these straps become worn too thin the temple bar and knife will not be drawn clear of the reed and they will sometimes pinch the strand of filling and cut it, and this will leave a tail of the strand of filling trailing the shuttle and this trailing filling will be caught up between the warp sheds before the shuttle reaches the opposite end of the lay and the filling fork cannot stop the loom off, so, a mispick part of the width of the cloth is the inevitable result. The ends of the temple bars seldom strike the reed and cut the filling. It is usually the tip end of the cutter knives. Some thread cutter heels will bend easily, and when this happens the knives will not be drawn back flush with the bar. By examining the reeds, most weave room men will be surprised to learn the number of reeds having small indentations in the reed dents where the cutter knives have been striking them, and this will surely make mispicks and the loom has no chance to stop off when one is made in this manner.

(5) Shuttle feeler, and thread cutting devices. When the filling yarn is run off the bobbin down to the bunch and the filling feeler makes contact with the bobbin and causes the transfer mechanism to be thrown into position indicating a transfer, shuttle feeler up, and due to some part being out of adjustment the strand of filling is cut, as it should be, but the full bobbin is not transferred into the shuttle from the battery. We refer to this as a false change, or false transfer. When using the old type shuttle feeler thread cutters, the cutting knives attached to the shuttle feeler, false changes will make mispicks, because the strand of filling is cut at the opposite end of the shuttle from the shuttle eye, and this trailing strand of filling will be trapped between the warp sheds before the shuttle reaches the opposite end of the lay and the filling fork has no chance to stop the loom off. The only sure and quick way to stop false changes is to start at the filling cam and check the entire filling motion through the battery. Also the pick motion on the shipper handle end of the loom should be checked, because if the shuttle goes into the opposite box a little late the tip end of the shuttle feeler will strike it and cause a false change, provided some of the transfer mechanism parts are out of adjustment. A mispick cannot be made from a false change when using the Stafford thread cutting device, because the strand of filling is cut too near the shuttle eye to leave a trailing strand of yarn long enough to become trapped between the warp sheds.

(6) The battery, and component parts. The battery should be checked very carefully because a lot of false changes are made from this source. If the battery disc binds on the disc stud this will prevent the disc from turning and placing the full bobbin in proper position for the transfer to strike it and make transfer into the shuttle. The same thing will happen if the bobbin support is too high, because the bobbin rings will bind against the support and prevent the turning into proper place by the disc. Excessively worn transferers, feed pawls, and hold back pawls will cause the same troubles also.

Of course a lot of mispicks are made by careless and indifferent weavers by starting the looms after the filling had broken and failing to take the time to match the pick. That is one reason I have suggested putting the weavers' pay on an incentive basis, and penalizing them for excessive seconds.



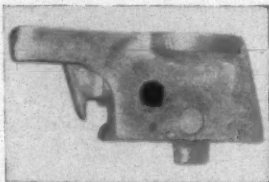
N. C. STATE GETS CARPET LOOM—The velvet carpet loom shown above has been installed in the School of Textiles at North Carolina State College and will enable the school to strengthen its instructional program in weaving. The complex loom is said to be the first such machine to be owned by any college or university in the United States. Inspecting the loom following its installation are Prof. Benjamin L. Whittier, left, head of the school's department of fabric development and construction, and Samuel Green of Thompsonville, Conn., weave room supervisor for Bigelow-Sanford Carpet Co., donor of the loom.

TENSION...

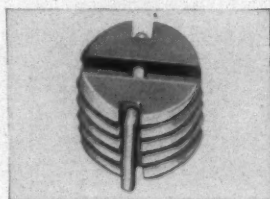
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Improving Dryer Operation By Recirculation Of Air

By LEO WALTER, Consulting Engineer

RECIROCULATION of air for hot air dryers is one of the best means for improving thermal and over-all efficiency of older types of warm air dryers, as used in textile plants. It should be realized by the practical textile engineer that a hot air dryer when working at higher air speed usually exhausts the air far below its saturation point at exhaust temperature, i.e., instead of leaving the dryer at 100 per cent relative humidity at its temperature, it might leave at say 75 or 50 per cent. In other words, the capacity of the hot air, generated from fuel consumption in one form or other, to carry away the evaporated moisture from loose stock, or from skeins, or from fabric, has not been fully utilized. The greater output is required from a dryer, the higher air speeds should be used, but at the same time exhaust losses increase from unsaturated air leaving the dryer. It follows that by simply increasing air velocity and air volume, when reconstructing an older hot air dryer type, for example, by exchanging the exhaust fan against a larger size, or by insertion of baffles, etc., is scarcely the complete solution, and in most instances recirculation of air should also be considered. Although reconstruction of older textile dryers on a larger scale will usually be carried out with the help of a specialist in drying, the practical textile engineer should know the basic facts on recirculation of exhaust air. The following brief survey should be an inducement for application of recirculation of air in textile drying where it not already exists.

Fig. 1 illustrates the simplest form of application of recirculation of part of exhaust air from a drying oven, heated by the conventional air heater battery with fan. The exhaust air is partly drawn into a circulating air duct, having a fresh air inlet damper "D," which can be set by hand for admixture of fresh dry air to the humid warm recirculated air. This air mixture is blown by the fan over the gilled steam heated tubes of the heater battery, and then into the drying stove. A similar arrangement with recirculation air duct is illustrated in Fig. 2, but the heater battery is located on top of the drying chamber. The fan draws exhaust air from air slots near the floor of the compartment, and part of it can be admixed to fresh inlet air by means of a recirculation air damper, as shown. In practice, layouts may have to be more elaborate, especially where zoned dryers should be improved, and where recirculation has to be applied to various zones. It is, however, usually the old and very simple dryer layout, which needs addition of recirculation, such as shown in Fig. 3, which illustrates a heated drying room with air heater and use of recirculation. Wherever drying rooms without recirculation

are still used, this or a similar layout is recommended, and reconstruction is easy and not costly.

Relative Dryer Efficiency

It is impossible to go into detailed calculations of savings of steam by using recirculation, and it may suffice to state that for example a conveyor dryer for loose wool can consume 2.7 kg. of steam per kg. wool without recirculation, but uses only 1.2 kg. steam with two-thirds recirculation (Fuel Economy Bulletin No. 7, Commonwealth Coal Commission, Sydney, Australia). This is a steam saving of about 28 per cent, which makes reconstruction a paying proposition.

Another criterion for saving of steam is the specific steam consumption of air heating per kg. of evaporated water from the stock, which figures may vary from 1.22 kg. of steam for ten per cent fresh air admitted, down to 0.12 kg. of steam for only one per cent of fresh air admitted, as per cent of total air flow used in a dryer of 28,000 cubic feet per minute (F. W. Thomas—see bibliography), used for hot air tentering of fabric. These and similar figures disclose the affect of inadvert air admixture, but do not take into account real recirculation, as shown before for the 150 kg. wool dryer.

In another example, investigation of an older type of tenter disclosed the following data:

TABLE A

	Steam in kg.	Evap. Moisture	Rel. Hum. of Exhaust	Exhaust Temp.	Steam Consumption per kg. evap. Moist
With recirculation	292	123	29%	70° C.	2.37 kg/kg.
Old type	330	75	8%	86° C.	4.4 kg/kg.

Total steam consumption before reconstruction was for 123,2 moisture evaporation.

$$S = \frac{330 \times 123,2}{75} = 542 \text{ kg. steam.}$$

After recirculation of 30 per cent exhaust air, a steam consumption per hour of 292 kg. was measured, giving steam savings per hour of 542 — 292 ± 250 kg. The savings in money depend on cost price of one kg. of live steam.

It should be noted that sometimes reduction of fan speed can lower the air speed across a dryer, thus increasing relative humidity of the exhaust air. For example, by altering the fan speed at a tenter, specific steam consumption dropped from 2.98 to 1.88 kg. steam per kg. evaporated moisture. Increased efficiency can be achieved by applying



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to tenters not only recirculation, but also zoned boosting up of temperature of recirculation, as shown diagrammatically in Fig. 3A. The air is heated in a multi-tubular heater, and at each turning point finned tubes are installed in the air-duct of the tenter, thus providing four zones of contact of air and fabric.

Sequence Use of Air

Another method, which can be used with advantage in larger textile mills where several hot air dryers work under different air inlet temperatures is "sequence use" of hot air. For example, the exhaust air, or part of it, from a high temperature stove can be utilized in a pre-dryer as inlet air, supplemented by fresh air, and the mixture of both is then heated up and blown into the pre-dryer, as shown in Fig. 4, where exhaust from a high temperature carbonizer is used in a primary dryer. A point which is often overlooked in practice is humidity of the drying air, and the influence of the "weather," whether a sunny day or a humid rainy day, is much more pronounced when working without recirculation, than when controlling humidity and temperature simultaneously by means of recirculation dampers.

Controlled Air Temperature and Humidity Combined

When introducing recirculation, automatic combined temperature and humidity should always be considered. Hu-

midity temperature control by the wet and dry bulb method, combined with temperature control, is illustrated diagrammatically in Fig. 5 for a drying room or chamber. A wet and dry bulb element is fitted in the outlet air duct from an air heater battery, and two recorder-controllers are employed, each having a thermostatic control system incorporated. Two standard non-indicating instruments are used, and the differential air pressure from the two instruments is transformed in a control box in differential air output pressure, which moves a mixing damper "A." According to the relative humidity the damper is automatically adjusted to exhaust or to recirculate the air from the drying room by means of a pneumatic lever motor. The fan also draws in fresh air, and the recirculated air is reheated by an air heater, which is again controlled by a non-indicating standard thermometer-controller, as shown at "B." The use of a duplex control instrument is similar to the above, but two control mechanisms are united in a single controller housing. The ideal way of producing controlled air temperature and humidity conditions when reconstructing old hot air dryers may sometimes be to replace the heater battery by a modern packaged air conditioning unit, and it may well pay to spend money on a fully automatically controlled air conditioner, as shown in Fig. 6 diagrammatically.

Recirculation and Waste Heat

It is sometimes possible, and has been repeatedly carried out by the writer, to combine introduction of recirculation

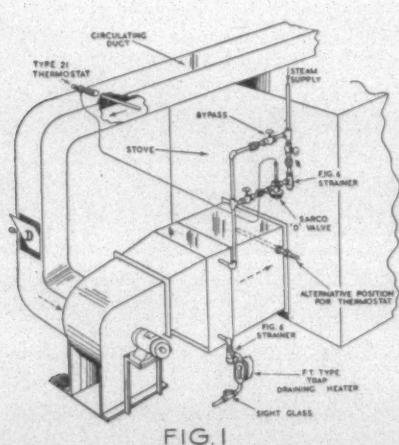


FIG. 1

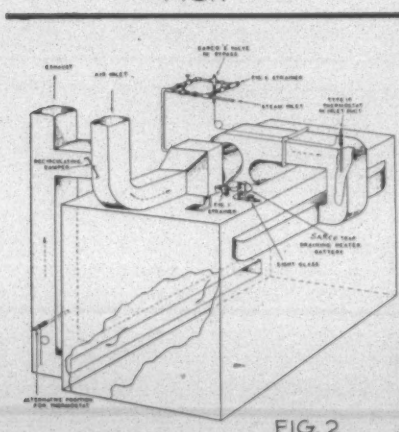


FIG. 2

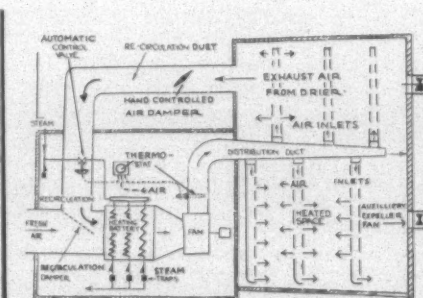


FIG. 3

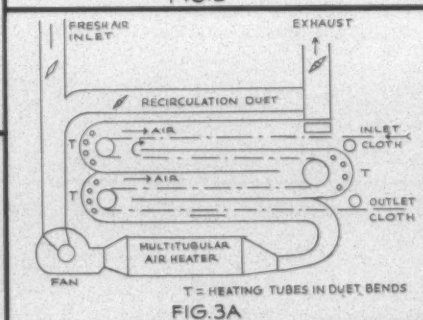


FIG. 3A

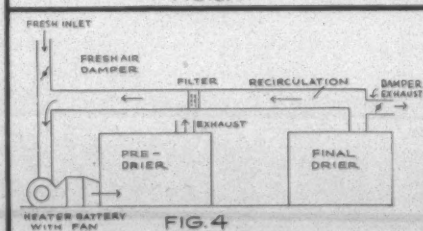


FIG. 4

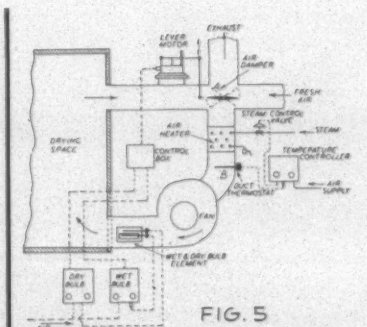


FIG. 5

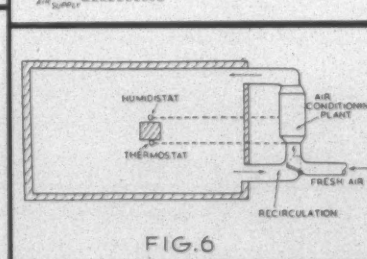


FIG. 6

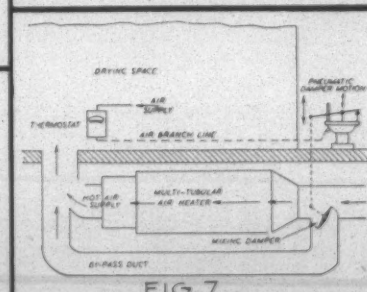
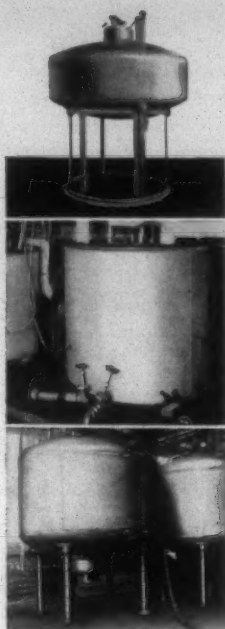


FIG. 7

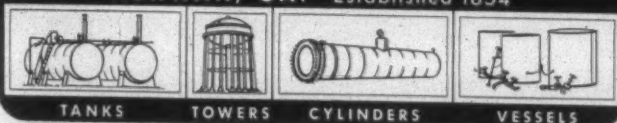
Fig. 1—Recirculation and thermostatic control (courtesy Sarco Co., Inc., New York City). Fig. 2—Hot air recirculation of drying stove (courtesy Sarco). Fig. 3—Simple control of air heater battery for dryer, with hand-controlled air damper in recirculation duct, but thermostatic steam control to heating battery. Fig. 3A—Diagram of tenter with zoned heating and recirculation (courtesy Fedor Moller). Fig. 4—Sequence use of air with recirculation. Fig. 5—Recirculation layout with damper control for humidity, and thermostatic air heater control. Fig. 6—Layout of thermostat and humidistat for controlling air conditions in drying shed. Fig. 7—Recirculation automatically controlled with mixing damper and multi-tubular heater for boosting temperature.

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BLEACHING, DYEING & FINISHING

in drying with utilization of waste heat. One method has already been mentioned, when dealing with sequence air circulation between two or more dryers. In its simplest form, filtered warm air from a room having warmer temperature can be used instead of fresh outside air for admixture to recirculation. For example, air from the boiler or power house may be filtered and admixed. Air heater batteries may use as heating medium exhaust steam from engines or condensate. Diesel cooling water from engine jackets may be boosted up in temperature in a combined heater-silencer, and the very hot water utilized in a heat exchanger or the multi-tubular type to produce hot air, as shown in Fig. 7. Automatic temperature control is performed by means of a thermostat in the drying space which readjusts the position of the mixing air damper according to air inlet temperature. By replacing in this scheme the steam-heated multi-tubular air heater by an air heater using flue gases from a boiler or economizer for heating up the air, a convenient means for flue gas utilization can sometimes be applied. Flue gas, or Diesel exhaust gas air heaters are available in various forms, some using tubes in a shell, others using platens, and produce hot air in great volumes. It might sometimes pay to produce steam from diesel ex-

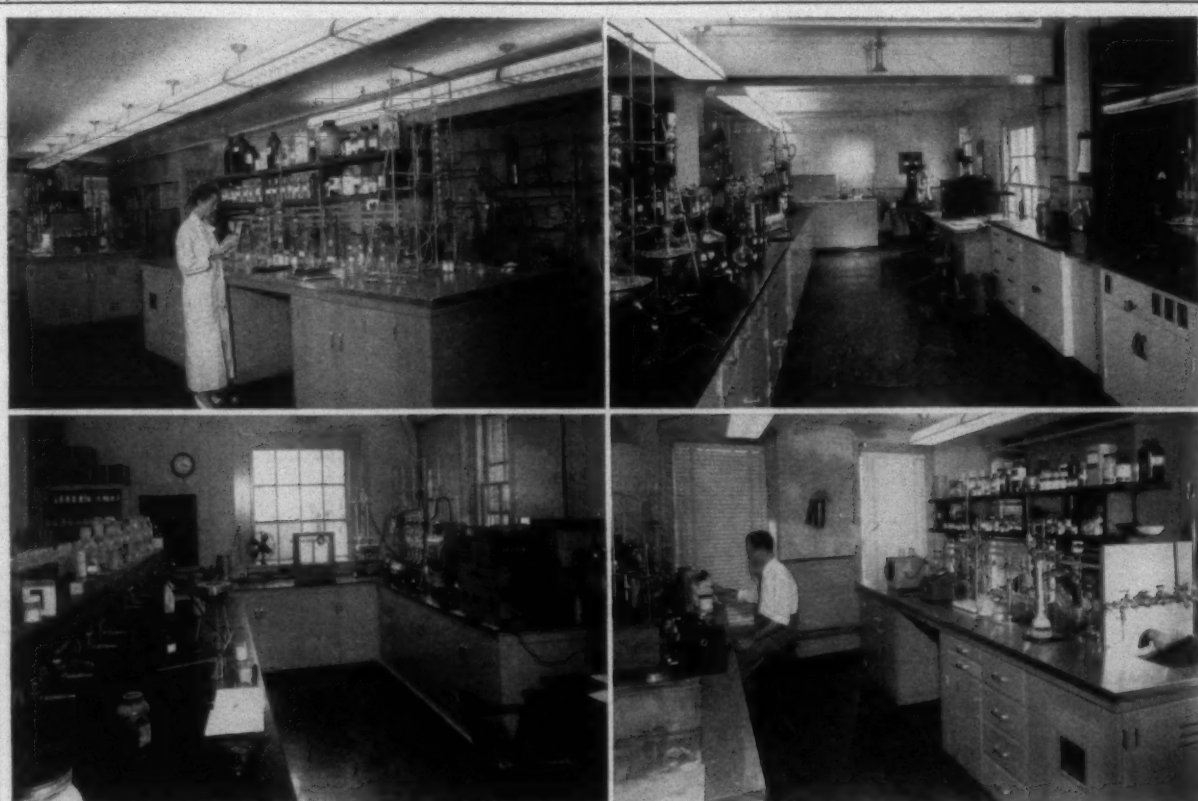
haust, and to use this steam for heating-up of recirculated air in a conventional air heater battery. Another source of waste heat is condensate from steam traps, which heat would otherwise be wasted, and/or flash steam forming from discharged condensate.

Summing up, it can be safely assumed that conversion of older hot air dryers to air recirculation is a paying proposition, both regarding increase of dryer output, and in reducing steam consumption, because the exhaust air from a dryer need not be heated up from cold, but only from exhaust temperature. Another advantage of properly applied recirculation is better and easier possibility of control of air humidity, this most important but often forgotten drying factor.

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A previous series of three articles by Mr. Walter relating to textile drying appeared in the February, April and May, 1951, issues of this journal. The author makes his home at Cheltenham, England.



ARNOLD, HOFFMAN & CO., INC., COMPLETES MAJOR ALTERATIONS—The formal opening of Arnold, Hoffman's newly-renovated office and laboratory building at 55 Canal Street in Providence, R. I., took place at an open house celebration Aug. 2. At top left is a view of the research laboratory with still rack equipment in background. Another picture of the research laboratory is at top right, and at lower left and right, respectively, are the auxiliary dye and analytical laboratories.

For 105 years this same building on historic Market Square has served as the home of Arnold, Hoffman, but the renovated structure now only faintly resembles the original. Originally, the old structure was two separate buildings; now, one complete building houses everything. There's a new street floor front, new windows and new brick walls. However, the really pronounced changes have taken place inside. Old-fashioned wide board flooring has been covered with asphalt tile or carpeting. Masonry walls have been refinished. Restful colors have been added to both offices and laboratories.

Whereas previously the old building furnished storage and shipping facilities, the renovated structure is taken over almost completely by offices and laboratories. The ground floor plan includes an attractive reception room, the president's office, administrative offices, accounting departments, filing and mailing operations, receiving department and Providence sales offices and purchasing department. Other offices and department heads are on the second floor, and at the rear of this floor are located the sales service laboratory and other laboratory facilities. Except for the library and a supply storage room, the third floor is devoted to research and development laboratories, and a new cafeteria for the staff which includes a combination sink, refrigerator and stove. Included in the equipment innovations in one of the laboratories on this floor is new glass-blowing equipment which makes possible the production of some equipment on the spot.

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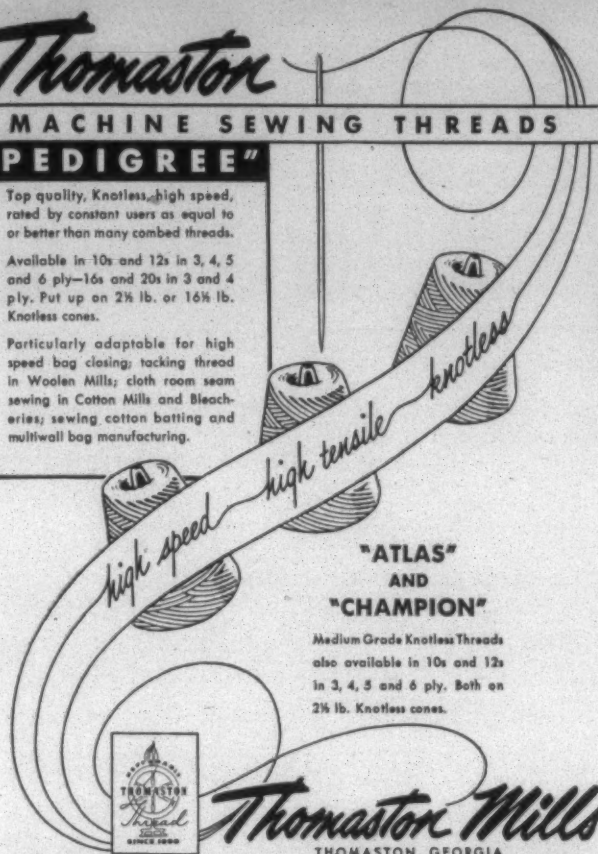
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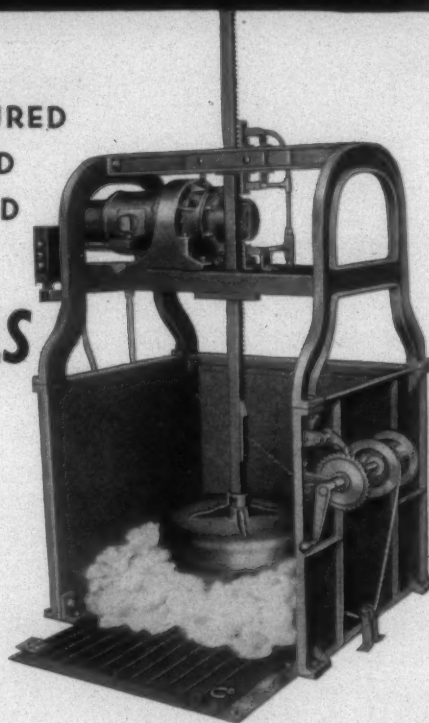
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Industrial Uses Of Metallizing

By JAMES LEE FIELD

THE idea of metallizing, or spraying of fine metal particles, was first conceived by Dr. M. U. Schoop of Zurich, Switzerland, about 1911. It is said he had the idea while he watched lead shot hit and stick to stone walls. In the early days of the process, it was boomed immoderately, so it gained a bad reputation. However, this reputation was overcome later as industry began to realize the true worth of the process.

Early Attempts at Metallizing

The first early attempts to spray metal were mechanical and gaseous. The mechanical method used vanes to pick up small amounts of molten metal and hurl it at the object to be coated. The gaseous method used an air blast to blow molten metal at the target. Experiments were made with powdered metal from various containers. The powder was heated as it was blown from a nozzle.

The need for portable metal spraying outfits brought on experimentation with pistol-like spraying units that operated from the hand. These pistols used metal in the form of molten metal, powder, and wire. This experimentation was from 1920 to 1930 in Europe.

The problem of the early experimenters was to melt only as much metal as could be sprayed immediately. Electrical heating was tried and discarded, and then the basic principle of present-day pistols was discovered. It was found that wire could be fed through a nozzle containing air, gas, and oxygen jets to provide continuous melting and spraying. The problem of advancing wire into the heated area at a speed to melt the correct amount of metal was solved by using the air blast to run a small air turbine. This small turbine, with a blade diameter from one to three inches, was geared to rollers that pushed the wire into the melting area. This wire speed could then be adjusted and set to work correctly at all times.

Present-Day Wire Pistols

The present-day wire-fed pistol weighs about three and one-half pounds and is portable. There are three tubes going to the pistol, one for compressed air, one for oxygen, and one for acetylene or propane gas. Wire is fed into the rear of the pistol, being pulled in by rollers. The rollers are driven by the geared-down compressed-air-operated turbine. The wire then passes through a nozzle containing jets for air, oxygen, and the combustible gas. The wire is melted, and the small, plastic drops of metal are blown to target by the compressed air blast. Wire is available for this purpose in a variety of sizes ranging from three-sixteenths to one-eighth of an inch in diameter. Some

powder-operated pistols are still in use, but they are in the minority.

It was known since the first days of metallizing that the metal spray itself was not very hot. "It is, however, a surprising fact that the hand, held a few inches from the nozzle of the pistol, will receive a metallic coating, yet experience little more than a warm air blast."⁴

This brought on a great deal of conjecture about what actually happened to make the sprayed metal hold together on a sprayed surface. "Present thought is that the particles are bonded by a combination of mechanical interlock and oxide cementation."⁵

The plastic particles leave the pistol, and in the air receive a coating of oxide. This oxide film breaks upon impact, letting the raw metal underneath, combine with the oxide of the previously sprayed layer. Also the rough surface of the plastic particle interlocks with the rough surface on the target. Almost any metal can be sprayed on wood, plastic, glass or metal bases.

Recent Developments in Metallizing

In the last few years there has been a revolutionary change in the preparation for metal spraying. Previously, metal surfaces had to be prepared for the spray by roughing. This was done by electrodes, by cutting tools, or by grit-blasting. Then it was found that molybdenum alloy, sprayed in a thin coat, provided molecular adhesion between the clean surface and the sprayed metal. This cut the necessary preparation process by about 40 per cent.

Another late development is the fusing or welding of the sprayed metal to the surface by providing sufficient heat to melt the sprayed metal, but not enough to melt the metal of the sprayed object.

Successful use of metallizing can be had only by paying equal attention to the three phases of the work, preparation, application and finishing.

To obtain good adhesion of sprayed particles, the surface to be sprayed must be absolutely clean. In some metals, this means heating to drive out any oils from the porous metals. Also, any part needing heat treatment must be sprayed after heating, or the coating is liable to crack.

If the molybdenum alloy bonding coat is not used, the surface of the metal to be sprayed must be roughed to receive and hold the sprayed metal. One method is to use a cutting tool on a lathe or other machine to cut ridges in the metal. These threads may then be roughed by a patented tool to make sure of adequate surface preparation, the idea being to leave jagged threads. Also, if the sprayed surface is to be a wearing surface, the base material may have to be cut below the possible depth of wear. The sprayed metal

must not come to a feather edge in this type of preparation. A definite end must be cut in the space to be filled. With a round object being turned in a lathe, this means the change in diameter from the part to be sprayed to the non-sprayed part must be abrupt.

The surface may be prepared by using an electrode, something like a welding electrode. The arc between the electrode and the surface being prepared, melts the electrode and leaves jagged bits of the electrode on the surface of the base. The electrically treated area should cover at least 95 per cent of the area to be sprayed. Another method is to grit-blast, preferably with steel grit, the surface.

The latest method of preparation, and probably the easiest to use, is spraying with molybdenum alloy undercoat. A thin coating, from .0015 to .002 inches thick, is sprayed on metal that has had the surface cleaned, usually by making a small light cut on a lathe or other machine. The cost of this method is about 40 to 50 per cent of the other methods. Also, the edges of the sprayed area may be feathered, thus helping cut cost. This molybdenum alloy undercoat can be used on any metal except copper, brass, or bronze. But any metal may be sprayed on the undercoat. A prepared surface must not wait over four hours before being sprayed in order that the surface stay perfectly clean.

Spraying of the Metal

In the actual spraying, the pistol is held about one foot from the surface to be sprayed, and is moved so that the spray covers the correct area. Any surface may be protected from the spray by grease or carbon. The oxygen-propane or oxygen-acetylene flame should be neither oxidizing nor reducing, but neutral in order that the plastic particle may pick up its oxide film only as it travels through the air. "For greatest efficiency the speed should be adjusted so the wire melts as far from the tip as possible for a coating of satisfactory particle size."⁵

The sprayed metal may be machined or ground. Speeds, feeds, and cutting tools are different from those used in machining regular metals. These particular details may be obtained from a manufacturer of metallizing equipment. An application of one-half kerosene and one-half cylinder oil, brushed on the sprayed metal 30 minutes before machining, helps machining and finish of all metals except stainless Monel metal, nickel, tobac, or phosphor bronze. Sprayed metal should usually be wet-ground with a wheel speed of 6,000 to 6,500 feet per minute, and a work feed of 80 to 90 feet per minute. The grinding wheel should be medium or coarse grain wheel with low bond strength.

Due to the method of application, sprayed metal is a cellular, porous substance, with about 15 per cent less specific gravity than solid metal of the same type. This structure means that the sprayed metal has low tensile strength and low elongation strength, but has the good qualities of high compressive strength and very high particle hardness. The hardness comes from the heat treatment effect the particles experience as they are sprayed.

Disadvantages of Metallizing

Because of the low tensile strength, sprayed metal can not be used for threads or gear teeth, and because of the low elongation strength, sprayed metal cannot be used under ball or roller bearings. Also, sprayed metal will not stand up under constant, direct impact. Any parts to be

both heat-treated and metallized should first be heat-treated as there is a tendency for the thin coat of sprayed metal to crack under heat treatment.

When thin gases or liquids are pushing against the porous metallized surface, as in a shaft that is metallized where it goes through a packing area, the metal coating must be very thick or else be sealed while hot with a coating of raw tung oil and five per cent cobalt liquid dryer. This prevents the gas or liquid from seeping through the sponge-like structure and under pressure, breaking the sprayed coating from the base.

Care must be taken when spraying thick coats, that the shrinkage characteristic of the sprayed metal is small.

As a bearing surface, sprayed metal is without an equal. This is due to three things; the ability of the porous sprayed metal to absorb oil, the ability of the sprayed metal to absorb minute pieces of worn off metal, and the hardness of the particles. Sprayed metal of 30 to 32 Rc (Rockwell, c-scale) outwears materials of 50 to 55 Rc, partly because individual particles of the sprayed metal are harder. In one series of tests, two types of journals were run without further oiling. "The hardened steel surfaces seized in an average of 3½ hours, while the sprayed metal journals averaged 22½ hours before freezing."⁷

In another test, as compared with the original crankshaft journals of gasoline and diesel engines, "The wear was 40 per cent less on an average and 50 per cent less in the case of the diesel engines."⁸

In textile mills, it is important to keep machines oil-free, so oil-filled sprayed bearings are of great value here. The sprayed surface is dipped in oil while still hot from spraying, absorbing enough oil to eliminate later oiling.

A corrosion resistant coating can be sprayed over a surface, efficiently protecting the surface if the sprayed metal is anodic to the surface metal. An example is the covering of iron or steel with zinc. For heat protection, grit-blast the surface to be sprayed, spray aluminum, seal with a special solution, and heat-treat. This process protects such parts as furnace parts, heat treating parts, and pyrometer tubes.

Uses of Metallizing in the Industrial Southeast

In the previous section, the advantages and disadvantages of sprayed metal were presented without reference to economical uses of metallization. With main consideration given to use in industrial Southeast, some uses of metallizing are now presented.

Metallizing can be used for maintenance work, production work, and repair of errors in production work. It can also be used as a corrosion-resistant coating, a chemically resistant coating, or heat-resistant coating. In maintenance work, worn parts can usually be rebuilt for 24 to 40 per cent of the cost of a new part, and the worn surface may be rebuilt with metal that will outlast the original metal. Metallizing will deposit about 21 pounds of metal per hour of $\frac{3}{16}$ -inch wire, which is faster than welding or electroplating.

In production work, a dissimilar metal may be sprayed over the surface metal. In this manner, a shaft may be made of a low quality metal for low cost and easy machining. Then the bearing surfaces or surfaces under packing may be sprayed with a very hard steel for long wear. General Electric builds turbine shafts this way. In making light structures, magnesium can be used and then hard metal sprayed over the bearing surfaces. This would be applica-

ble to aircraft structures. For parts needing a hard surface, the hard metal can be sprayed on the prepared surface, when sweated or heat-treated to make the sprayed metal melt over the part. This method is used in making and repairing mandrels or rams. "It has been found, for example, that spray-welded surfaces having a hardness of 58 Rockwell c will often resist wear ten times longer than carbonized or nitrided surfaces of greater hardness."²

"The performance of a tool steel mandrel repaired in accordance with this process is about eight to 14 times as good as in the original non-coated condition."² Another use of this spray weld process may be for the teeth and other parts of earth moving equipment.

In making and repairing patterns for molding, metal patterns can be rebuilt and wooden patterns sprayed with metal. On wooden patterns metallized with zinc, then aluminum, the process made possible a prolonged life exceeding 1,000 consecutive operations. Another wooden pattern of the same type was worn out after using 50 times, without the benefit of metallizing.

Repair of Errors in Production Work

Any larger or valuable part that has been undercut may be rebuilt with metal spray. Also holes in iron castings may be filled with sprayed metal.

Use of Metallizing in Maintenance Work

As mentioned earlier, metallizing is particularly applicable to textile maintenance work. One Canadian plant has about 20,000 spindles and it realizes a saving of over \$40,000 by reworking 5,000 spindles per year. Slasher roll surfaces have been sprayed with stainless steel for one-fifth the cost of a new part. Mercerized guide rolls have been sprayed with 18.8 stainless steel to prevent corrosion.

Pump parts, such as packing areas and packing sleeves, can be rebuilt by metallizing. Pump shafts that have worn out in two years show no sign of wear two years after metallizing. Blades of water wheel runners have been rebuilt also. Bearing surfaces on any machine can be rebuilt, along with rolls in textile mills, at a nominal cost. One roll used 572 pounds of wire to save 3,800 pounds per roll. A very economical use is rebuilding armature shafts. Metal is sprayed and machined on the same lathe set-up, making it unnecessary to press out and perhaps bend the shaft.

LIST OF SOME METALLIZING APPLICATIONS

Textile Industry

Spindles
Shafts
Rods
Drawing rolls
Sand rolls
Loom crankshafts
Size pump impeller shafts
Spinning frame rolls
Line shaftings
Loom shafts
Squeeze roll shafts
Bronze guide rolls
Spindle jacks in cardrooms
Pump impeller shafts for bleach solutions
Pump rod in recovery plant
Card feed rolls
Lickerin-rolls journals
Spiked apron stretcher shafts
Comb shafts
Fluted calender rolls
Cradle shafts
Slasher rolls
Squeeze rolls

Pump Parts

Shafts
Sleeves
Packing areas

Production

Metal molding patterns
Wooden molding patterns
Mandrels

Chemical Industry

Chemical agitators
Porcelain retorts
Steel cup retorts

Miscellaneous

Waterwheel runners
Corrosion-resistant coatings
Hydraulic ram heads
Crankshafts
Armature shafts

Chemical agitators have been heavily coated with aluminum; porcelain retorts have been sprayed with pure silver; and small steel cup retorts have been sprayed with pure molybdenum to cut costs.

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The foregoing paper was prepared by James Lee Field, who completed his studies this Spring for a degree in industrial engineering at North Carolina State College, Raleigh, and who is now a field representative for the industrial engineering firm of Henderson, Lindsay and Michaels of Greensboro, N. C. The author is the son of W. M. Field, secretary of Barnhardt Bros. Co. at Charlotte, N. C.

Increased Fork Truck Hoisting Speeds

According to Mercury Mfg. Co., 4044 South Halsted Street, Chicago, hoisting speeds of fork trucks are a critical consideration in plants, warehouses and shipping departments where large volumes of pallet-loaded materials must be moved quickly each day. Any method for saving time by speeding fork-truck operations naturally results in appreciable yearly cost savings. Often overlooked is the fact that similar fork trucks can have different hoisting speeds.

The critical considerations here are not so much the weight and operational capacities of the truck, but rather the rated voltage of the power source. Because the lifting speeds of battery-powered fork trucks are almost directly proportional to the impressed voltage for a given load, higher voltages will provide faster lifting speeds. Hoisting-speed increases of 15 to 20 per cent by this method are not uncommon.

Therefore, when considering the purchase of new equipment or the possibility of increasing the capacity of existing equipment, it is advisable to investigate the economics of a higher-voltage power source. This does not imply that it is always more economical to operate fork-truck lifts at the highest possible speeds. There are many installations where the capacities of existing equipment are equal to and even greater than the plant's most critical material handling needs. Naturally, in cases such as these, it would not be wise to install larger batteries.

However, in plants, warehouses and shipping departments where fork trucks are in almost constant use, any gain in time or speed will allow the same number of trucks to do considerably more work. For an example of how a larger power source can increase fork-truck hoisting speeds, let us look at the speeds of a 5,000-pound truck under two voltage conditions. When powered by a 30-volt industrial battery, this truck has average hoisting speeds of 29 f.p.m. (feet per minute) with empty forks and 14 f.p.m. when loaded to capacity. However, when powered by a 35-volt power source, the same truck can lift its unloaded forks at a speed of 34 f.p.m. and capacity loads at 18 f.p.m. This represents a hoisting-speed gain of approximately 17 per cent.

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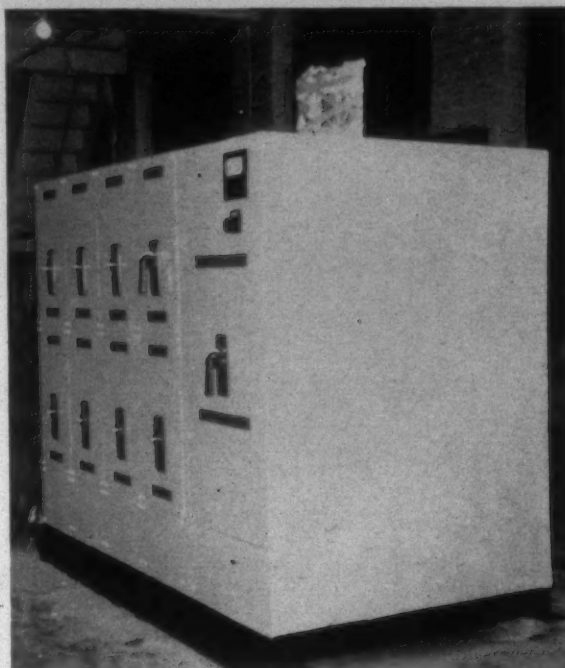
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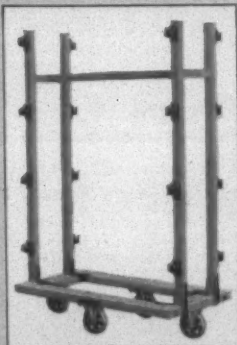


Fig. 310 Lap Truck

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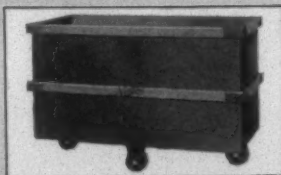


Fig. 870 Box Truck

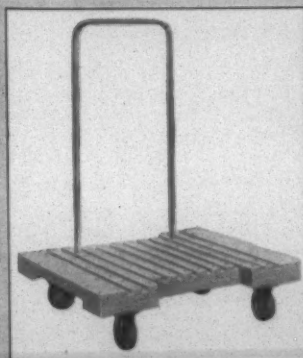


Fig. 360 Baling Press Truck



Fig. 304-A Doffing Box Truck



Fig. 88-5XRF Castor With Thread Guard

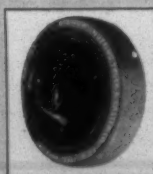


Fig. R10HDW Rubber Tired Wheel

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Grady Gilbert, Box 342, Concord, N. C. Frank Rogers, 900 Woodside Bldg., Greenville, S. C.

PERSONAL NEWS

Walter S. Huff has been appointed manager of the Greer (S. C.) Plant of Victor Monaghan Co., a division of J. P. Stevens & Co., Inc. Mr. Huff has had 27 years' experience with box looms at Dunean Mills, Greenville, S. C., another Stevens unit, and prior to that period of service at Dunean he was active in the spinning and twisting departments. Mr. Huff's appointment will enable C. F. Stansell, former manager of the Greer Plant, to devote full time and attention to his duties as manager of the Monaghan Plant of Victor-Monaghan Co. at Greenville. H. P. Glenn will continue as superintendent of the Greer Plant. . . . Jesse A. White and Carl A. Johnson, general manager and general superintendent, respectively, of the Republic Cotton Mills Division of J. P. Stevens & Co. at Great Falls, S. C., have been promoted. Mr. White, a native of Chester, S. C., and a graduate of Clemson (S. C.) College, becomes assistant general manager of the Carter Fabrics Operating Group which has its headquarters in Greensboro, N. C. Mr. Johnson, a native of Pontiac, R. I., and a graduate of the Rhode Island School of Design, succeeds Mr. White as general manager at Republic.



Clifton E. Watson of Watson & *Desmond, Charlotte, N. C., has been appointed an advisor on textile and leather machinery and supplies with the general industrial equipment division of the National Production Authority, Washington. During World War II Mr. Watson was chief of the textile mill maintenance section and later chief of the textile machinery branch of the War Production Board. Mr. Watson is at present on the advisory committee of N.P.A. on textile mill supplies.

James H. Leverette, Southern division purchasing agent for American Thread Co. with headquarters at Atlanta, Ga., was married Aug. 11 to Miss Chloe Elizabeth Cox of Dalton, Ga.

J. C. Pirkle has been appointed superintendent of Valley Mills, Columbiana, Ala., succeeding J. E. Carvey, resigned.

W. S. Nicholson retired Aug. 1 as treasurer of Darlington (S. C.) Mfg. Co., a unit of Deering, Milliken & Co. Mr. Nicholson began his textile career 44 years ago and had been associated with Deering, Milliken

& Co. for the past 22 years. He has been succeeded at Darlington Mfg. Co. by James M. Oeland, formerly with Monarch Mills at Union, S. C., another unit of Deering, Milliken & Co.



Walter B. Dillard, formerly of New Braunfels, Tex., has been named manager of the Calcot and Canebrade spinning mills at Uniontown, Ala., which are operated by the California Cotton Mills Division of National Automotive Fibers, Inc. Mr. Dillard was assistant manager of the Uniontown plants in 1948, to which he is now returning as manager.

O. N. Fisher, formerly overseer of the spinning department at the Osprey Plant of Bibb Mfg. Co. at Porterdale, Ga., has been transferred to the Number Two Group in Macon, Ga., as assistant superintendent replacing Elmer McClure, resigned. . . . Resulting promotions include: Rollie C. Thompson, formerly assistant overseer of spinning at Osprey, to succeed Mr. Fisher as overseer; John Carter, assistant overseer of spinning on the third shift, becomes assistant overseer on the second shift; Emory Shaw, shift foreman in the spinning department at the Porterdale Plant, becomes assistant overseer of spinning on the third shift at Osprey; and Kenneth King has been promoted from the packing department at Porterdale to shift foreman in the Porterdale spinning department.

F. K. Gabriel, service superintendent of the rayon plant of E. I. du Pont de Nemours & Co., Inc., at Waynesboro, Va., has been elected president of the Waynesboro Rotary Club to fill the unexpired term of Julian Black. . . . Millard G. Gamble, III, assistant manager of Cordura rayon tire yarn sales for Du Pont since last Fall, has been promoted to manager of the section. He succeeds Pierre S. du Pont, III, who recently was made assistant director of sales of the rubber chemicals division. Mr. Gamble was employed by Du Pont in December, 1945, as a sales trainee in the rayon division after more than four years in the Navy. For three years, he was a salesman in the Charlotte, N. C., district and from Feb. 1, 1949, until Feb. 1, 1950, he was a rayon salesman in the Providence, R. I., district, prior to his transfer to Wilmington as a salesman of Cordura rayon tire yarn. He was made assistant manager of the section Nov. 1,

1950. . . . Nine personnel changes in the sales and technical service organizations of the acetate and rayon divisions were announced Aug. 6. In the acetate division, Paul E. Munson, district sales manager in New York for the rayon division, is appointed district sales manager in New York for Orlon acrylic fiber. He will be succeeded by Arthur M. Saunders, district sales manager for the rayon division in Philadelphia. R. M. Morgan, a rayon division salesman in Charlotte, N. C., will succeed Mr. Saunders in Philadelphia. Charles D. Wenrich continues as district sales manager for acetate rayon in New York. Richard W. Trapnell, III, is appointed district sales manager for Orlon in Charlotte, with James J. Cook continuing as district sales manager there for acetate rayon. Fred C. Allen is appointed district sales manager for Orlon in Providence, R. I., where Earle V. Litchfield will continue as district sales manager for acetate rayon. Daniel M. Thornton, III, becomes manager of the technical service section for Orlon acrylic fiber and Dr. W. W. Watkins is appointed manager of technical service for acetate rayon. Dr. Bruce S. Farquhar has been appointed manager of sales development for Orlon acrylic fiber and M. K. Ryan, Jr., will continue as manager of fabric development for Orlon.

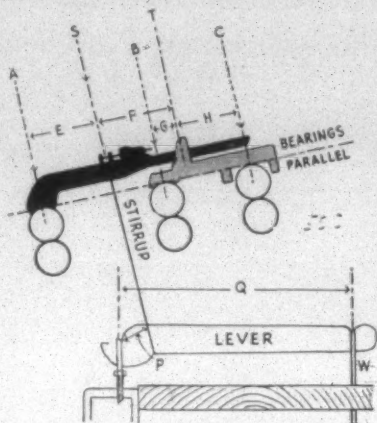
Harold F. McKnight, a graduate of N. C. State College, Raleigh, has been named assistant to the chief engineer at Mooresville (N. C.) Mills.



Burrell C. Cole and W. T. Heard have retired from active management as partners of Medley Mfg. Co., Columbus, Ga., and present officers of the reorganized company, now known as Medley Mfg. Co., Inc., are L. H. Morrison (pictured above), president; Cason J. Callaway, Jr., vice-president and treasurer; and Harry George, secretary. The new board of directors is composed of Mr. Morrison; Mr. Callaway; Charlton Williams, president of Swift Mfg. Co.; and Howard Callaway of the U. S. Army.

Zeb V. Simmons, formerly general overseer of weaving, has been promoted to superintendent of weaving, preparation and the cloth room at Seminole Mills, Statesville, N. C., a unit of United Merchants & Mfrs., Inc. Mr. Simmons succeeds James O. Elmore who was transferred to the new

How to Check Weights on your Spinning Rolls



- A, B and C } Pressures on Front, Middle and Back Rolls as shown above
E, F, G, and H } Distances shown measured in inches.
P — The perpendicular distance from stirrup to contact point at top of lever screw. When measuring, be sure rule is held so angle with stirrup is 90°
Q — The distance from contact point at top of lever screw to weight hook
T — The point of contact between saddles as well as the pressure on the Back Saddle
S — The point of contact between stirrup and Front Saddle, as well as the pressure on the Front Saddle
W — The weight on the lever in pounds.

Formulae for Figuring Weight on Rolls:

- For Pressure on Front Saddle:
 $(W)(Q) = S(P)$ Solve for S
For Pressure on Front Roll:
 $(S)(F) = A(E+F)$ Solve for A
For Pressure on Back Saddle:
 $(S)(E) = T(E+F)$ Solve for T
For Pressure on Middle Roll:
 $(T)(H) = B(G+H)$ Solve for B
For Pressure on Back Roll:
 $(T)(G) = C(G+H)$ Solve for C

DIXON suggests a careful Check of Weighting on all Rolls

The above weight ratio formulae are designed to help you to more complete and visual understanding of the many factors affecting good weighting and the proper functions of an ideal saddle assembly.

Cut out this diagram and formulae and keep for your future reference or we will send you reprints on request. If you encounter weighting problems which these formulae do not solve, send them to us for solution.

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J. W. DAVIS, Mfg's Agent
P.O. Box 745 Columbus, Ga.

PERSONAL NEWS

U. M. & M. plant being completed at Clarksville, Ga. . . . H. C. Nixon, shift overseer of weaving, has been promoted to general overseer of weaving to succeed Mr. Simmons.

William L. Balthis, vice-president of Trenton Cotton Mills, Gastonia, N. C., has been honored by the Gaston County Board of Public Welfare for 13 years' service as a member. Mr. Balthis, who recently retired from the civic body, was presented an engraved silver plate.

J. H. Ripple, manager of the blanket and sheeting mills of Fieldcrest Mills, Spray, N. C., recently completed 30 years with the company and was given a surprise party by employees of the mill office.



H. J. Daigneault (at left) and M. A. Conner have been appointed vice-presidents of the National Aniline Division, Allied Chemical & Dye Corp. with headquarters at 40 Rector Street, New York.

Both have been associated with National Aniline for over 30 years. Mr. Daigneault was, for many years, manager of the New England territory and more recently, has been director of domestic sales. He will continue to direct and co-ordinate National Aniline sales of dyes, organic chemicals and synthetic detergents. Mr. Conner has held various positions in the production division, both at the Buffalo, N. Y., plant and in New York, and has recently been assistant to the general manager. In his new position he will concentrate upon manufacturing activities and long-range planning.

B. W. Whorton, vice-president of Dixie Mills, Inc., LaGrange, Ga., last month completed 25 years' service with the concern.

J. A. Parker, previously associated with Burlington Mills Corp., has been appointed superintendent of Cantex Mfg. Co., Canton, Ga., which currently is expanding its operations to include the entire finishing of textile fabrics.

Russell F. Crawford, Jr., has become associated with the textile research department of American Viscose Corp. as a staff

member in the textile chemical division at Marcus Hook, Pa. Prior to joining Avisco he was connected with Sharpe & Dohme and Rohm & Haas.



Alton P. Siddons has joined the technical staff of Amalgamated Chemical Corp., Philadelphia, where he will assist in the recently expanded service department available to the textile wet finishing trade. Mr. Siddons has recently

been with Supreme Dyeing & Finishing Co. as superintendent of the dyeing department. Prior to that, he was with Bailey Dye Works, Philadelphia, as superintendent of the dyeing department for full-fashioned hosiery, half-hose, terry cloth and looped rugs. Earlier he was with E. L. Mansure Co. as assistant dyer on skein yarns, rug bindings and tapes, and assisted in the design of automobile fabrics. He also was superintendent of dyeing on rayon skein yarns using direct and vat colors at Atlas Dye Works. Mr. Siddons is a 1929 graduate of the Philadelphia Textile Institute.

H. J. Shivell, president of Slip-Not Belting Corp., Kingsport, Tenn., has been appointed chairman of the 1951 budget and admission committee of the Community Chest of Kingsport. . . . Frank L. Hopkins of Borden Mills, Inc., Kingsport, is a member of the committee headed by Mr. Shivell.

Cary C. Boshamer, textile executive and sportsman of Clover, S. C., Aug. 2 was elected president of a Cleveland, Ohio, corporation which has purchased two of the largest racing tracks in that city. Mr. Boshamer's "King Clover" ran in the Kentucky Derby this year.

Ernest Holt has been promoted from overseer of carding to superintendent of Piedmont Cotton Mills, East Point, Ga. Mr. Holt succeeds V. Frederick Williams, who resigned to accept the position of superintendent of Pinecrest Cotton Mills, Inc., Pine Bluff, Ark.

Carl O. Hoyer has been appointed director of the general engineering department of Chemstrand Corp., Philadelphia, Pa. Mr. Hoyer came to Chemstrand from the plastics division of Monsanto Chemical Co. at Springfield, Mass. Monsanto and American Viscose Corp. are joint owners of Chem-



THIS TRAILER IS THE HOME OF ALLEN L. MILLS, SR., general manager and secretary of Paola Cotton Mills at Statesville, N. C., and Mrs. Mills. The 40-foot aluminum trailer, set up on a lot adjoining the mill office, contains two bedrooms, living room and kitchenette, and is equipped with television, telephone, bath and refrigerator. In the picture above Mr. Mills points to accommodations arranged for the family dog.

strand, which is now engaged in constructing plants at Decatur, Ala., and Pensacola, Fla.

George F. Long has joined the textile sales engineering staff of W. C. Hardesty Co. Prior to joining Hardesty, Mr. Long was associated with Limerick (Me.) Yarn Mills, Ludlow (Mass.) Mfg. and Sales Co., and Swift & Co.

S. Herschel Harris has been elected vice-president in charge of production, a newly-created position and title, at Standard-Coosa-Thatcher Co., Chattanooga, Tenn. Mr. Harris joined the company in 1922 and since 1948 has been agent and superintendent of the company's largest plant, the Coosa, located in Piedmont, Ala.

Fred W. Noechel, until recently associated with the U.S.E.O. Division of Callaway Mills Co., LaGrange, Ga., has joined Deering, Milliken & Co. as assistant to E. H. Hines, plant manager of Johnston (S. C.) Weaving Mill, Inc. Mr. Noechel was for 22 years connected with Botany Mills, Inc.

James H. Merrimon, formerly director of industrial relations for American Enka Corp., Enka, N. C., has been named manager of the newly-created department of general stores and employee service. He will direct operation of the Enka plant's warehouses, finished product storage, receiving and inspection of materials, the operation of the plant's cafeterias, rental of company houses and farm lands. . . . Francis M. Gilman, with Enka for two years, succeeds Mr. Merrimon as plant director of industrial relations.

J. Carl Kearse, attorney of Bamberg, S. C., and a state senator, has been elected chairman of the board of Bamberg Textile Mills. A member of the board since the inception of the corporation, Mr. Kearse had been acting as chairman pro-tem since the death of the former chairman, J. D. Copeland.

Harry G. Bruns, a member of the New York bar and trust officer of Industrial Trust Co., has been elected treasurer of Arnold, Hoffman & Co., Inc., Providence, R. I., effective Sept. 1.

W. L. Lassetter and C. M. Henderson have been elected directors of Mandeville Mills, Carrollton, Ga. Mr. Lassetter is secretary of the company and Mr. Henderson, who lives in Montgomery, Ala., is the grandson of L. C. Mandeville, one of the original founders of the firm.

W. P. Saunders, president of Robbins (N. C.) Mills, Inc., recently was appointed to serve on North Carolina's new stream sanitation committee.

Hext M. Perry, purchasing agent for a number of textile plants in the Greenville, S. C., area, has been elected a member of the board of governors of the Greenville Country Club.

Warren R. Williams, president and general manager of Father George Mills, Inc., Sanford, N. C., was honored recently upon his retirement as mayor of Sanford, a post he had held for the past 20 years. U. S. Senator Willis Smith and former Senator William B. Umstead headed a large group



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PERSONAL NEWS

of state officials and dignitaries who gathered July 27 to honor the textile executive at a "Warren Williams appreciation banquet."

Carl C. Mattmann, textile fabric technologist of New York City, has attracted wide attention with his collection of more than 3,000 tin historical figurines which he has worked over to represent a cavalcade of American wars and events pertaining to them. An illustrated feature article, concerning Mr. Mattmann recently appeared in *The New York Times*.

A. D. Ennis, formerly associated with Ashworth Bros. in Charlotte, N. C., has joined Charlotte Mfg. Co. and will sell card clothing to the textile trade.

Fred W. Segerstrom, formerly district manager of industrial sales for Libbey-Owens-Ford Glass Co. at Los Angeles, Calif., has been transferred to the new fiber glass division, Toledo, Ohio, as manager of super fine fiber glass sales. Work on the first factory unit of the fiber glass division at Parkersburg, W. Va., is being rushed so that production may get under way late this year.

W. T. Galey, Jr., president of Aberfoyle Mfg. Co. since 1939 and associated with the business founded by his father since 1903, has been elected chairman of the board of directors of the company. The company was founded in 1883. Joseph P. Holt, vice-president and treasurer since 1936 and associated with Aberfoyle since 1912, was elected president of the company. Mr. Holt is one of the best known men in the yarn industry. William T. Galey, 3rd, was promoted to vice-president of the company for the first time. Re-elected vice-presidents were E. J. Neal and J. S. Kenrick, the latter in charge of sales development. G. W. Herrick was elected treasurer and will continue as secretary. He was assistant treasurer also. He joined the company in 1910. Frank Crummer was named assistant treasurer and purchasing agent. Miss Frances Hamilton was elected assistant secretary. Reason for the re-deployment of top officers was because of increased volume of its Du-rene yarns and its many newly developed products, such as Day-Glo yarns, Fiberfoyle, Nyfoyle and others. Named directors were Mr. Galey, Mr. Holt, Mr. Herrick, John L. Wetherill, W. S. Blakeley, Jr., Kenneth Lord, C. A. Turner, F. W. Hancock and Ralph V. H. Wood.

Albert G. Blank, a member of the dryer division sales department of Proctor & Schwartz, Inc., has been named assistant sales manager. Mr. Blank has been in sales work with Proctor & Schwartz since 1934. A graduate of Drexel Institute of Technology, he joined the Proctor organization in 1929, working for his first five years with the firm in the outside research department. In his new position Mr. Blank will be responsible for developing sales planning and will assist Myron T. Fleming, recently named vice-president in charge of dryer sales.

George S. Buck of the National Cotton Council; Walter M. Scott of the Bureau of Agricultural and Industrial Chemistry; and Emery I. Valko of the Polytechnic Institute of Brooklyn recently were elected to fellowship in the Textile Institute at Manchester, England.

Alvin H. Leonard, who is in charge of carpet and rug finishing at the Valway Plant of Callaway Mills Co., LaGrange, Ga., July 6 completed 25 years of continuous service with the firm. He was presented the traditional bouquet, service pin, and jeweled engraved watch.

OBITUARIES



Dr. Earl K. Fischer, since November, 1950, chief of the organic coatings section of the National Bureau of Standards, Washington, D. C., died Aug. 3 of a heart attack. A native of Milwaukee, Wis., Dr. Fischer was the author of a recently published book, *Colloidal Dispersions*, and many technical papers. He is survived by two sisters.

Julius C. Gregson, 82, who was instrumental in the organization of Hadley-Peoples Mfg. Co. at Siler City, N. C., died Aug. 3 at his home in Siler City. Mr. Gregson was especially known for his ability as a cotton buyer for his mill, a job which he kept when he sold his interest in the mill in 1944. He retired from active work about a year ago. Surviving are his wife, three daughters, a brother and a sister.

Russell L. Harmon, 43, of Mooresville, N. C., for the past six years production manager of Burlington Mills Australia.

Ltd., at Maitland, New South Wales, died June 27 at a hospital in Maitland. Before going to Australia he was overseer of weaving at the Bur-Mil Cascade rayon plant in Mooresville. Surviving are his wife, a daughter and three sons, his father and step-mother, five brothers and five sisters.

Fabius J. Haywood, 74, banker of Concord, N. C., and a former textile executive, died July 19 at a hospital in Concord. In 1916 Mr. Haywood helped organize the Norcott Mill, now Plant No. 10 in the Cannon Mills Co. chain, and was president of Norcott Mill for a time. He was also a director of Cannon Mills Co. and president of the Cannon Foundation, Inc. Surviving are his wife, a daughter and three sons.

Charles D. Moss, 40, of Dyersburg, Tenn., purchasing agent for Huntsville, (Ala.) Mfg. Co. from 1939 to 1950, died July 22 at a hospital in Memphis, Tenn. Survivors include his wife, two sons and a sister.

William G. Perry, 99, a pioneer in the development of the textile industry in the Piedmont section of South Carolina, and for many years a resident of Greenville, S. C., died last month. Mr. Perry was the first secretary of the Piedmont Mfg. Co. and was later associated with Enoree (S. C.) Mfg. Co. He retired in 1931.

Belton L. Quick, Sr., 62, of Charlotte, N. C., sales representative for B. S. Roy & Son Co., was killed July 29 in an automobile accident near Anniston, Ala. A. P. Bell of Winston-Salem, N. C., also a sales representative with the textile machinery firm, was injured in the crash. The two men were returning to Charlotte after a business trip to Texas. Mr. Quick is survived by two daughters, one son and two brothers.

W. C. Sykes, 73, retired textile executive of Statesville, N. C., died July 23 at his home in Statesville. Mr. Sykes was in the textile business in Greensboro and Erwin, N. C., before coming to Statesville in 1920. He was vice-president and general manager of Statesville Cotton Mills until 1947, when the plant was sold to Burlington Mills Corp. He is survived by his wife, two sons, two daughters, four sisters and a brother.

Frank T. Ward, 88, of Raleigh, N. C., a former official for many years with Melrose Knitting Mills and Raleigh Cotton Mills, died recently. Three sons and two daughters survive.

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

LAUREL HILL, N. C. — Morgan Cotton Mills, Inc., recently was granted a construction permit by the National Production Authority for a \$185,700 cotton spinning mill, to be erected here.

CHESTERFIELD, S. C. — McLeod Narrow Fabrics Corp., which utilizes 16 looms in the production of insulation tape, has been

purchased by a group headed by Harry Hodges, Jr., of Wadesboro, N. C. Mr. Hodges has resigned from his position as assistant superintendent of Wade Mfg. Co., Wadesboro, to become president of the concern. Robert H. Peasley, of Charlotte, N. C., continues as sales agent for the mill.

ROCKY MOUNT, N. C. — Rocky Mount

Finishing Co. has been chartered with authorized capital stock of \$50,000. Subscribed stock of \$300 is by Hyman Battle and Ronald Stevens, both of Rocky Mount, and Turner Bunn, Jr., of Wilson, N. C.

MORGANTON, N. C. — Production of woven cotton rugs is scheduled to begin in November at a plant here to be operated

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Blows ALL Fly, Lint and Litter from bobbins by
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as an operator can handle bobbins. Simply
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concave head for bobbins of 7/8" O.D. or
smaller; Model B with convex head for larger
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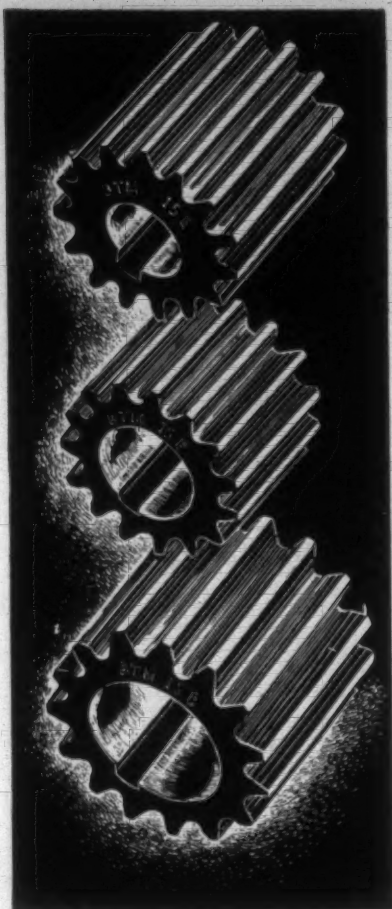
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Bahan carries the most complete stock of loom motor pinions in the South. We offer a complete range of sizes for all standard motors. Pinions are made of finest quality steel, heat treated* for maximum service, precision cut to within .001 inch concentric. All teeth are generated on modern gear shapers. Available from stock for immediate shipments.

Save time and avoid costly delays by using this convenient and complete motor pinion service.

*Write or wire us your requirements.
Your inquiries are welcome.*

*Pinions not heat treated
also carried in stock.

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GREENVILLE, S.C.

MILL NEWS

by the recently-chartered Shuttle-Wyze Carpets, Inc. The plant will employ about 80 persons per shift, it is reported. The firm is headed by J. Ed Butler, Morganton attorney, as president. J. O. Barbour, insurance executive, is vice-president of the concern and J. J. Matwin, formerly of Greenville, S. C., is secretary.

MERIDIAN, MISS.—Textron Mississippi, Inc., with a capitalization of \$2,500,000, has been chartered in Delaware as a subsidiary of Textron, Inc., and will operate a \$6,500,000 cotton weaving plant to be constructed near Meridian by Textron, Inc. The project will be financed by a local bond issue, approval of which is a condition of Textron's plans. The plant will employ about 1,200 persons; it is estimated, with an annual payroll of about \$2,500,000. Textron plans construction of a second plant in Mississippi in Monroe County, near Amory. Plans for the project, however, depend upon approval by Monroe County citizens of a \$2,600,000 bond issue for constructing and equipping the textile plant. Under the proposed plan, titles to the building and machinery would be retained by the municipality. Textron would lease both for a ten-year term.

EMPORIA, VA.—Weldon Mills, Inc., filament rayon fabric weavers of Pawtucket, R. I., will move its operations to Emporia the latter part of September. The firm will move into a modern building it is erecting adjacent to the finishing plant it has operated in Emporia for several years. A company spokesman revealed that about 210 of the firm's 300 looms would be moved to the new plant.

BAMBERG, S. C.—The board of directors of Bamberg Textile Mills last month approved a profit sharing plan which will enable employees to participate in the profits of the business in such a manner that all eligible employees will accumulate from year to year a fund which will be distributed to them upon retirement. The firm will contribute to the fund each year five per cent of its profits above \$40,000 before taxes are deducted. It is estimated that the contribution for the current fiscal year ending July 31, 1951, will be between \$12,000 and \$13,000.

HAWKINSVILLE, GA.—Superba Mills, Inc., which utilizes about 3,480 spindles and 117 looms in the production of cotton yarns, towelings and towels and napkins, has been purchased by M. Snower of Chicago, Ill., who owns a number of mills. Superba will be known as the Hawkinsville Division of Opelika Mfg. Co. The new owner states that extensive improvements will be made at the plant.

CONWAY, S. C.—Construction is to begin soon on a modern plant to be occupied by Conway Textiles, Inc., for the manufacture of finished textile products. Initial investment in the building and machinery will be about \$250,000. Approximately 250 persons will be employed by the new concern.

MACON, GA.—Three warehouses, containing approximately 250,000 square feet

of floor space, have been purchased by Bibb Mfg. Co. from Gulf Atlantic Warehouse Co. for a price said to be about \$350,000. The buildings will be used for the storage of cotton.

WILMINGTON, N. C.—The new fabric mill being constructed here by Woonsocket (R. I.) Falls Mills, is tentatively scheduled to begin production by late Summer. Training for the approximately 700 employees will begin at the same time.

BURLINGTON, N. C.—Jersey Fabrics, Inc., has been chartered to engage in the business of spinning and weaving. Authorized capital stock is \$150,000, subscribed stock \$400 by R. A. Coble, Wade Coble and Kelly Sharpe, all of Burlington.

CEDARTOWN, GA.—Gibbons Mills, Inc., is scheduled to go into production this month, producing narrow fabrics for the slide fastener and binding trades. The firm, headed by R. M. Gibbons, Jr., as president, will operate in a leased building on South Main Street which provides 6,000 square feet of floor space.

RUTHERFORDTON, N. C.—Capacity at Laurel Mill, Inc., which produces rayon dress goods, will be increased considerably with the installation of 52 additional looms, bringing the plant total to 244.

RUSSELLVILLE, ALA.—It is reported that Southern Properties, Inc., has no plans, at present, for using the building purchased recently from Russellville Mills. It was purchased, a company spokesman explained, because "it offered a good possibility of investment for the purpose of textile operations in that area in the future."

CRAMERTON, N. C.—The Cramerton Division of Burlington Mills Corp. Aug. 1 celebrated its fifth anniversary as a Bur-Mil unit with a barbecue and fashion show at the Cramerton ball park attended by approximately 6,000 persons.

LAURENS, S. C.—Citizens of Laurens have subscribed the minimum quota of funds needed to construct a plant here to be operated by Woonsocket (R. I.) Worsted Co.

NEW ORLEANS, LA.—The Edwin H. Fittler Co. of Philadelphia, Pa., plans to construct a \$1,000,000 cordage plant here provided the company can obtain permission from the government. Products to be manufactured are rope, twine, binder and baler twine of manila and sisal fiber.

GREEK, S. C.—According to a recent report from Daniel Construction Co. of Greenville, S. C. and Birmingham, Ala., work on the three million dollar modernization and expansion program at the Victor-Monaghan plant here is nearing completion. This work includes a 55,000 square foot addition to the existing building. It is a 95-foot truss span with metal acoustical ceilings, metal roof deck with tar and gravel finish. The metal acoustical ceiling resting on the bottom of the large trusses forms a service floor providing clear space between ceiling and roof, ample room for air-conditioning ducts, sprinkler system, recessed lighting, power and other service facilities. R. G. Emery, executive vice-president of J. P. Stevens &

Co., Inc., has announced that these facilities being built by Daniel Construction Co. will include, in addition to the weave room, approximately 10,000 square feet of apparatus towers, locker rooms, offices and a sample weave room. An additional 6,000 feet is being provided in a shipping area. D. C. Turrentine, Jr., general manager of Victor-Monaghan Co., stated that with the construction work nearly completed, the plant is ready to change from narrow loom plain weaving to wide box loom production. The present employees are being given a comprehensive training program in preparation for this changeover. The total number of workers, however, will not be materially affected. Nearly 600 are presently employed at this plant of Victor-Monaghan Co. Including machinery, this modernization and expansion program, will exceed \$3,000,000. General contractors for this project are Daniel Construction Co. Plans were prepared by J. P. Stevens & Co., Inc., engineering department.

HONEA PATH, S. C.—A recent announce-

ment from Daniel Construction Co. of Greenville, S. C., general contractors for the project, indicates that the Westover Fabrics plant at Honea Path is nearly complete and will go into operation in the near future. This 90,000 square foot weaving plant is totally enclosed and air conditioned. The new mill will be equipped with between 400 and 500 looms for the weaving of synthetic fabrics and it is anticipated that initial employment will be in the vicinity of 200 people.

BELTON, S. C. — The \$2,000,000 rayon weaving mill being erected by Daniel Construction Co. for Peerless Mills Co. is scheduled to be completed by Aug. 30. The mill will be completely air conditioned, totally enclosed with day light fluorescent lighting throughout, including the warehouse areas. The 100,000 square foot building is of one-story construction with steel frame and jumbo brick walls. The office in front of the building contains a reception room, employees' entrance, general and private offices. Centrally located inside the mill is a cafe-

teria, rest rooms and supply rooms. The plant will employ about 300 persons when in operation.

LEXINGTON, N. C. — Wennonah Cotton Mills Co. observed its 65th anniversary Aug. 3 with a dinner-dance for employees and families at the Lexington Country Club. A feature of the event, as in the past, was service award ceremonies honoring veteran employees. Miss Maude H. Miller was presented a 50-year service pin and certificate. Eight employees were presented service certificates and pins for 25 years of service and a like number for ten years of service. J. V. Moffitt, Jr., president and treasurer, revealed that of 450 employees 96 have been with the company between ten and 24 years, 53 between 25 and 49 years, and six for over 50 years.

GREAT FALLS, S. C.—A new beam and packaged-dye plant recently was completed at Republic Cotton Mills, a division of J. R. Stevens & Co. The new plant represents an investment of \$120,000 and will

McLeod's



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MCLEOD LEATHER & BELTING COMPANY

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NORTH CAROLINA

MILL NEWS

enable Republic to do a complete job of finishing its gray yarn in any required color. The new facility is part of a modernization program in progress at the plant.

LOWLAND, TENN.—J. E. Bassill, president of American Enka Corp., announces that the company's production capacity is being substantially increased by the installation of additional spinning machines for both textile and tire yarn at the Lowland plant.

DILLON, S. C.—Carolina Mills, Inc., yarn manufacturing plant, will continue operations under the Chapter X trusteeship of N. Walser Edens and W. H. Corry. U. S. District Court at Charleston, S. C., directed that an order be submitted for continuance of the trusteeship, which was requested by the trustees in their report. Trustees asked for continuation of the trusteeship until matters now pending are finally determined and a plan of re-organization is approved. Carolina Mills, Inc., filed its Chapter X

petition for re-organization on Nov. 11, 1948.

GASTONIA, N. C.—The new room built to house the winders and twisters at the Osceola Plant of Textiles, Inc., has been completed and machinery is being installed. Excellent lighting has been installed along with modern humidifier and blower systems. The one-story building will provide about 50 per cent more floor space in the spinning department.

SOUTH CHARLESTON, W. VA.—Production of dynel has been doubled with the completion and operation of a new plant addition here by Carbide & Carbon Chemicals Co. Fiber from the doubled production is committed to sustain the present diverse sales development program, according to Carl Setterstrom, sales manager of the textile fibers department.

CHARLESTON, S. C.—The new plant under construction near Charleston by United Piece Dye Works is expected to be ready for occupancy by September or October. The plant will have initial employ-

ment of about 75, eventually increasing to 200.

RHODHISS, N. C.—A newly-constructed beach at Lake Rhodhiss was dedicated July 14 for family members and employees at the Rhodhiss Plant of Pacific Mills. Between 800 and 1,000 family members and employees attended the dedication ceremonies. A barbecue dinner climaxed the program.

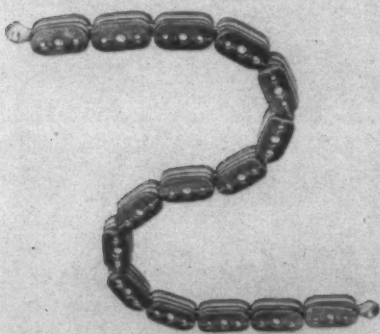
PHENIX CITY, ALA.—Phenix Webbing Mill recently went into production here, turning out narrow fabrics up to four inches in width. Within the next few months the mill expects to be turning out three times its present capacity. It will employ 30 people and operate three shifts a day, six days a week.

HAMLET, N. C.—It is reported in trade circles that Martin Weiner Co. of New York is considering construction of a new textile plant in the Hamlet area. Company officials state, however, that plans for a new plant have not progressed beyond the preliminary survey stage.

For The Textile Industry's Use

EQUIPMENT — SUPPLIES — SERVICES — LITERATURE

Graton & Knight V-Belt



According to Graton & Knight Co., 348 Franklin St., Worcester, Mass., leather link construction double-faced V-belt has the high power transmission capacity of leather, and has outlasted and outperformed solid leather, laminated, and endless rubber V-belts on serpentine drives such as spool drum drives on tape condensers; has great efficiency on small pulley short center drives and requires no dressing. Each link consists of two fibre sections faced with oak tanned leather. Steel connectors insure great flexibility and eliminate stretch. Leather segments are V-faced to provide a double bevel which conforms to standard V-belt sheaves. The double V feature prolongs the useful life of the belt since on straight drives it can be turned over to become the equivalent of a new belt. This is said to be an advancement over the G. & K. single V-belt found so successful for many years.

Monsanto Colloidal Solution

Syton C-30, a colloidal solution of hydrated silica in water for emulsion type waxes, water-based finishes, textiles, latex and other products, is described in a new bulletin prepared by the Merrimac Division of Monsanto Chemical Co. Numerous applications of the chemical, as well as general properties, are given in the bulletin. They include its use as an anti-slip agent in emulsion type waxes, as an anti-blocking and gloss controlling agent in water-based finishes, latex and other similar compounds, for modification of fiber-to-fiber friction during drafting operations in the manufacture of textile yarns.

New Blue Acetate Dye

A new blue acetate dye with excellent light fastness and which requires no inhibitor against gas fading has been announced by Tennessee Eastman Co., Kingsport, Tenn. This new dye is known as Eastman Fast Blue GLF Concentrated. The announcement of Eastman Fast Blue GLF Concentrated is another step in a long-term development program initiated some ten years ago by Tennessee Eastman to make available a complete series of acetate colors with excellent fastness to both gas and light. Two other such colors are in the final stages of development—a green shade of yellow and a red violet. These dyes will probably be announced in the Fall.

While there are a few blue acetate dyes on the market which exhibit good fastness properties with respect to either light or to

gas, the new Eastman Fast Blue GLF Concentrated is the first reported to combine such properties. Eastman Fast Blue GLF Concentrated is expected to find immediate use in men's suitings, dress goods, draperies, upholsteries, and other applications where high resistance to both light and gas fading is required.

Eastman Fast Blue GLF Concentrated is recommended for self shades as well as in combination with other acetate dyes of exceptional gas and light fastness, such as Eastman Fast Yellow GLF, Eastman Fast Yellow 4RLF, and Eastman Fast Red GLF. With the rapid increase in the production of synthetic fibers, it is interesting to note that Eastman Fast Blue GLF Concentrated is suitable for use on Dacron polyester fiber and dynel.

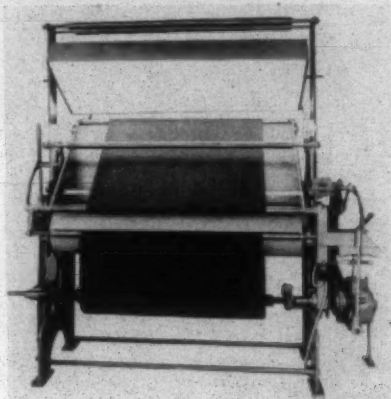
To obtain maximum fastness, optimum leveling and exhaustion, Tennessee Eastman recommends that dye bath temperatures of from 180 to 200° F. be used. Eastman Fast Blue GLF Concentrated should be dyed with one per cent sodium meta phosphate on the weight of the fabric and with one-quarter to one-half per cent sodium acid phosphate or tartrate in the dye bath. Anionic rather than non-ionic detergents and leveling agents are suggested.

Moore Named Agent

William J. Moore, manufacturers' agent of Greenville, S. C., recently was appointed agent for the Georgia Webb & Tape Co.'s line of sewing thread, twister and spinning tape, for the states of North Carolina and South Carolina. Mr. Moore also represents

Edward H. Best & Co., Boston, Mass.; Redman Card Clothing Co., Andover, Mass.; Chapman Electric Neutralizer Co., Portland, Me.; Walter L. Parker Co., Lowell, Mass.; Waukesha (Wis.) Foundry Co.; and Chas. L. Parker Co., Lowell, Mass.; Waukesha (Wis.) Foundry Co.; and Chas. A. Schieren Belting Co., New York. Recent additions to Mr. Moore's sales staff are Bob Richardson and John Hayes, who are working North Carolina, South Carolina and Georgia.

Constant Speed Examiner



Hinneken Machine Co., in Paterson, N. J., announces the development of a new constant speed examiner. Into this machine Hinneken's engineers have put all the important improvements developed to date for exacting inspection of materials in dyeing and finishing processing. In an introduction at the Hinneken plant, John S. McNamara, production manager, demonstrated the versatility of the new examiner by inspecting finished goods and light-screening gray goods without any change in machine set-up. Other major changes which Mr. McNamara pointed out included the automatic piece stamping mechanism, which is a more positive method of measuring goods than that employed on former models of examiners.

The completeness of this latest Hinneken model and the accuracy of inspecting which it affords, the firm believes, will make it the preferred machine of its kind with textile men everywhere. It was agreed by all who viewed the demonstrations that from the operator's standpoint, the examiner is about as satisfactory a machine to supervise as exists, it being so easy to handle and practically fool-proof. Hinneken's production department will have the new constant cloth speed examiner available for Fall requirements.

Nickerson-Hunter Colorimeter

Textile men of the Carolinas recently were given the opportunity to view demonstrations of the new Nickerson-Hunter Cotton Colorimeter, which is produced by Henry A. Gardner Laboratory, Inc., Bethesda, Md. Demonstrations of the unique colorimeter were conducted Aug. 20 at Greensboro, N. C.; Aug. 21 at Charlotte, N. C.; Aug. 22 at Gastonia, N. C.; Aug. 23 at Spartanburg, S. C.; and Aug. 24 at Greenville, S. C.

Designed to indicate automatically values

THE "JUNIOR CLEANER"

Does a "Man-Size" Job!

For use between hopper and conveyor.

Delivers to regular cleaning line.

Completely opens and pre-cleans small amount of cotton delivered to each hopper in battery, so that machines in regular cleaning lines do *more cleaning with less staple breakage.*

Requires 43" between hopper and conveyor table.

PROVED BY TEST



Shown above is a complete installation of "JUNIOR CLEANERS" in opening room of an Alabama mill.

Manufactured by

GASTONIA TEXTILE MACHINERY CO.

GASTONIA, NORTH CAROLINA

FOR THE TEXTILE INDUSTRY'S USE—

for reflectance and color on a two-dimensional chart, the new Nickerson-Hunter Cotton Colorimeter provides a self-standardizing device adaptable to the measurement of limited ranges of color in two or three dimensions. A feature of the new colorimeter is said to be its capacity to maintain itself

in standardization. When a raw cotton or other specimen is presented for measurement, the instrument provides a direct reading, on a two-dimensional scale, of the graphic values of reflectance and yellowness. Accuracy of the device is high, it is claimed, and precise measurements within a very small difference of color ranges are readily accomplished.

The apparatus is simple to operate and

users of the equipment can learn to interpret and evaluate the results of measurements in a short time. Some firms now using the device include American Yarn & Processing Co., Anderson, Clayton & Co., Burlington Mills Corp., W. D. Felder & Co., Otto Goedecke Co., Johnston Mfg. Co., Mayuyei Co., Inc., Transmeres Corp., the Institute of Textile Technology and U. S. Department of Agriculture.

ROTARY UNIONS

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Pipe Size
1/4" thru 3"



**A Revolving
Steam Connection**

**With Built-in
Shock Absorbers**

Ball bearing construction, anti-wobble shafts and a tight rust-proof Monel mechanical seal make ROTARY UNIONS outperform and outlast other revolving connections.

In addition, ROTARY UNIONS float on their own flexible hose connections which absorb misalignment and shock, adding months of trouble-free service.

Write today for Catalog 600 B and learn how you can save money and increase production by using ROTARY UNIONS on your slashers, dry cans, calendars, printing, and coating machines.

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Riggs & Lombard Padder

Important advantage of the new-type padder announced by Riggs & Lombard, Lowell, Mass., is that diaphragm type air motors ensure more even pressure from side to side because there is no friction as is the case when regular cylinders are used. It is further stated that there is no air leakage with this type of pressure equipment. Maintenance economy is an additional benefit as bottom roll, being of stainless steel, does not have to be removed for periodic re-grinding as is the case when rubber roll is used.

The new R. & L. unit has heavy-duty stands complete with heavy-duty steel pipe tie girts. Bottom roll is stainless steel jacketed, while the top roll is rubber covered. Bearings are heavy-duty roller type in cast iron housings, with one side of fixed type while the opposite side is floating type. Pressure is obtained through use of three diaphragm type air motors on each side. Each set of air motors is connected to sliding yoke which comes down directly on top of the top roll bearings. The air motors give a pressure of 350 pounds per linear inch of roll surface, which in the case of the unit pictured gives a total load of 24,000 pounds.

For top roll lift equipment, there are two five-inch standard type cylinders equipped with levers so that—when pressure is released from the diaphragm motors—the top roll may be lifted out of contact with the bottom roll. At the entering side, a stainless steel tank with suitable immersion rolls is located under the main rolls. A set of cloth guiders at the entering edge of the tank keeps the cloth centered as it goes into the tank. Just ahead of the main rolls, a single expander roll ensures that the cloth goes into the rolls' open width and free from wrinkles. To keep the roll free from flocks, a flock brush complete with flock tray is located on top and in front of the top main

Carolina

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by the way they're made*

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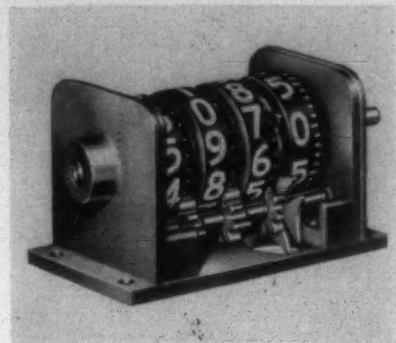
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GREENSBORO, N. C.

Phone 2-3037

roll. At the delivery side of the machine is a folder which receives its drive through roller chain and sprockets from the bottom main roll. The main drive is normally through a variable speed unit, so that cloth speed may be varied as required.

Veeder-Root Counter



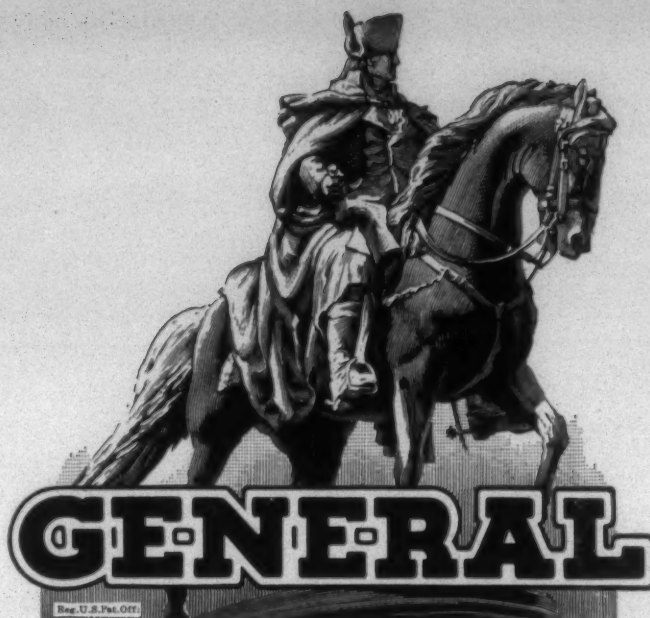
Higher speeds than ever before available in a mechanical counting device are claimed for the new Series 1370 counter currently announced by Veeder-Root, Inc., Hartford, Conn. This patented counter, incorporating high-speed Geneva transfer, has been designed and developed by Veeder-Root engineers to meet requirements for higher speeds, and for larger figures (more than one-quarter inch high) to provide easier readability.

This new counter is rated at 1,500 drive-shaft r.p.m., which gives 15,000 counts per minute with a standard ten-digit unit wheel. At this rating the counter is long-lived and withstands higher speeds for short operating periods. Counter is the non-reset type, adding when the drive shaft is rotated in one direction, and subtracting when the drive shaft is rotated in the opposite direction. It can be made in any figure-capacity, with special unit-wheels like those pictured above, to meet different requirements. Applications for this counter in industry, especially as a built-in component of other mechanisms, should be practically limitless, the company claims.

Emmons Appoints Gossett

Emmons Loom Harness Co. of Lawrence, Mass., and Charlotte, N. C., announces appointment of Ralph Gossett & Co., Greenville, S. C., to represent Emmons in that state. Purpose of the appointment is to ensure prompt and efficient service for Emmons customers in South Carolina.

The Gossett Co. will henceforth act as suppliers and consultants on the use of Emmons products, including cut-out and slotted drawing-in heddles for use with Barber-Colman drawing-in machines, and the recently-introduced Emmons RigidReed. Special advantages of RigidReed, it is stated, are that the reed has the lightness and resiliency of pitchband construction, yet most of the strength of all-metal reed is also present because the ribs are magnesium or aluminum. RigidReed dents are in better alignment and can open and spring back readily; they do not tend to imbed in the rib as in the case of a conventional reed. No tubing, backstrips, or inside metal strips are required for additional strength. Other Emmons



High grade gas, by-product, steam and household stoker coal from Wise County, Virginia, on the Interstate Railroad.



High grade gas, by-product, steam and domestic coal from Wise County, Va., on the Interstate Railroad.



High grade, high volatile steam and by-product coal from Wise County, Va., on the Interstate Railroad.



The Premium Kentucky High Splint unmatched for domestic use. Produced in Harlan County, Kentucky, on the L. & N. Railroad.

COKE

Roda and Stonega from Wise County, Va.

ANTHRACITE

Hazle Brook—Premium Lehigh
Raven Run—Premium Mahanoy

Capable engineering personnel and the experience gained through long and varied marketing activity assure proper application of one of the above brands and effective servicing of any fuel requirement.

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High grade gas, by-product, steam and domestic coal—Pittsburgh seam from Irwin Basin, Westmoreland County, Pennsylvania, on the Penna. Railroad.



High volatile domestic, steam and by-product coal from Boone and Logan Counties, W. Va., on the Chesapeake & Ohio Ry.



Genuine Pocahontas from McDowell County, W. Va., on the Norfolk & Western Railway.



High fusion coking coal for by-product, industrial stoker and pulverizer use from Wyoming Co., W. Va., on the Virginian Ry.

FOR THE TEXTILE INDUSTRY'S USE—

products to be channeled through the Gossett outlet include heddles of all types, heddle frames of wood, aluminum or magnesium, slasher and striking combs.

Active at the Greenville office of Ralph Gossett & Co. are Ralph Gossett, R. L. Carroll, and Ralph Gossett, Jr. From the main office at Greenville, the company branches out to cover the textile South with a complete line of major supplies used in

practically every mill operation. Now one of the South's oldest manufacturers' representatives in textile supplies and machinery, Ralph Gossett & Co. was established in 1919. The family name has been associated with textiles for many years, in that the senior member's father, James P. Gossett, founded the Gossett Mills. Ralph Gossett was chairman of the board of directors and his brother, B. B. Gossett, was president when these mills were sold to Textron.

Within convenient reach of all mills in

South Carolina, headquarters of the Ralph Gossett & Co. are Suite 204, Crawford Bldg., 8 South Church Street, in Greenville. Inquiries about Emmons products originating in South Carolina may be directed to that address, for immediate attention.

George A. Field of Charlotte, N. C., is Southern manager for Emmons Loom Harness Co.

Yale Battery Charger

A new industrial battery charger for units up to 55 ampere-hour capacity is available from the Philadelphia Division, Yale & Towne Mfg. Co. Operated on the selenium rectifier principle, the new charger is designed to give simplified, maintenance-free operation, prolong battery life, and save power. These results are accomplished primarily by an automatic controller, which governs the amount and time of charge and a complete lack of moving parts.

The new Yale charger will reduce the human element to a minimum. There are only three simple steps to perform. Plug it in—set clocks—and throw a switch. There are no moving parts to maintain. An extra large plate area obviates the need for a fan and there are no commutators or brushes to be lubricated or create friction.

The new Yale charger with its dual clock control affords protection to both new and old batteries, whether fully or partially charged either in a cold or warm area, the firm states. To accomplish this, temperature compensation is built into the charger. Available for either lead-acid or nickel-alkaline batteries, the charger can be plugged into any standard 110/115 volt 60 cycle outlet. No special wiring is necessary. A step-down transformer is furnished for 220 volt outlets. Other capacities for larger batteries will be available in the near future.

Firm Changes Name

The name of Nylon Bearings, Inc., Whitman, Mass., has been changed to Industrial Plastics, Inc. The firm will continue to

CONTINUOUS BLEACHING
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star® silicate's control

STAR

Star is peroxide's "governor". When no cloth is present it stabilizes the solution, and then in the bleaching range, it controls the oxygen release to permit even bleaching. The purity of Star avoids floc formation which may cause scale deposit and entrap iron or other impurities damaging to the goods.

Star's constant purity assures full value from your peroxide with more uniform bleaching. Little wonder more mills want Star. When you need silicate, see PQ.

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**HIGH QUALITY
COMBED and
CARDED
KNITTING and
WEAVING
YARNS**

**BEAMS, CONES
TUBES, WARPS**



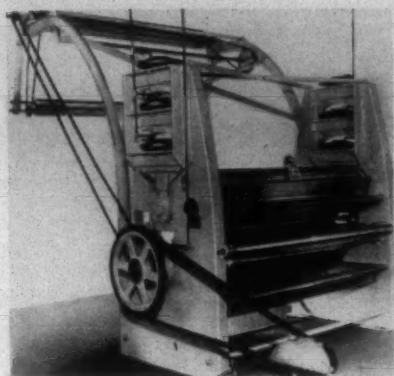
MARTHA MILLS DIVISION, Silvertown, Georgia

LARGE PRODUCTION . . . UNIFORM QUALITY . . . LATEST MACHINERY

• SOUTHERN SALES AGENTS: **Walter T. Forbes Co.** PHONE L. D. 28, CHATTANOOGA, TENN.

manufacture Nylube bolsters for ring spinning frames and ring twisting frames; Sintex non-lubricated top rolls, and industrial injection molded parts.

Squeeze Roll Extractor



Instead of standard type cylinders with cup or adjustable packing, air motors provide pressure for Type AD18 squeeze roll extractor introduced by Riggs & Lombard, Lowell, Mass. Three diaphragm-type air motors on each side of the squeezer ensure more even pressure from side to side, it is stated, because there is none of the friction that occurs when regular cylinders are used. Pressure of 350 pounds per linear inch of roll surface is provided.

While the top roll is rubber covered, the bottom roll is jacketed with stainless steel. This feature reduces maintenance, as the bottom roll does not have to be removed for periodic re-grinding as is usual when a rubber roll is used. Further advantage is that the stainless steel roll effects better extraction.

As pictured above, a single expander roll is placed ahead of the main rolls to feed the cloth into the rolls open width and wrinkle-free. A drip pan with threaded outlet is located beneath the main rolls. In addition to more even side-to-side pressure and easier maintenance, Riggs & Lombard points out that there is no air leakage with this type of pressure equipment.

Yale & Towne 'Trucker'

A new series of gasoline fork trucks specifically designed for operation in and around highway motor trucks and freight cars is announced by the Philadelphia Division, Yale & Towne Mfg. Co. Called the "Trucker" series, the new trucks combine low weight, low over-all height and high maneuverability for operation in close quarters.

Available in capacities up to 2,000 pounds, the "Trucker" is only 68 inches high when the telescopic lift is collapsed. In duplex models, the truck can elevate its forks 54 inches before the secondary channels rise to increase the height. This is a valuable feature allowing two high stackings inside street truck bodies. The "Trucker" also features short over-all length.

All controls on the new Yale fork truck are automotive type. Clutch, accelerator, gear-shift, and brake are in conventional positions while controls for hoisting, lowering and tilting the forks are located in close proximity to the steering wheel. The hy-

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Revolutionizes Swivel Casters!*

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**Fairbanks'® great new
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Series 23
pressed
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LOCK-WELD CONSTRUCTION (patented) MEANS

NO KING PIN

completely eliminates the greatest single cause of caster failure: the king pin.

EASIER SWIVELING

double ball race held in rigid alignment. Tremendous increase in swiveling efficiency.

SUPER STRENGTH

top plate and retaining plate are projection welded into an integral unit. No wear between rigid and moving parts. Patented leg design prevents bending and buckling...disperses load over larger area.

COINED RACEWAYS • HARDENED BALL BEARINGS • PRESSURE LUBRICATION

Complete information on LOCK-WELD casters is contained in Bulletin 23-33, free on request.

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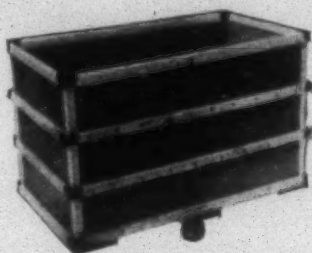
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For long and satisfactory Service

The
Excel
No. 1000
Fibre
Truck



This is a sturdy truck upon which you can depend for long and satisfactory service.

Compare its specifications with those of any other fibre truck.

- .090 vulcanized fibre, securely riveted to hardwood rails with solid steel rivets. These solid rivets are placed at short intervals to prevent buckling.
- Hardwood solid or slatted bottom, sanded to a smooth finish.
- Heavy duty metal top rail.
- Heavy duty metal corners.
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draulic brakes also follow automotive practice. The power impulses from the engine are transmitted through triple reduction spur and hypoid gears to the drive axle. The drive axle is enclosed in an oil-tight housing and is the full-floating type with involute spline drive shafts.

For further information, write for Bulletins 1306-11 to Yale & Towne Mfg. Co., 11,000 Roosevelt Boulevard, Philadelphia 15, Pa.

Gould Technical Handbook

Gould-National Batteries, Inc., Trenton, N. J., announces a 56-page revised edition of the free pocket-size handbook of technical instructions and engineering data on the care of motive-power storage batteries. The major addition to the handbook is a new six-page section on battery charging. Included in this section is information on modified constant voltage and two rate charging; boost, equalizing and emergency charging; control of discharge by four different methods; automatic control of charging by both ampere-hour meter and voltage relay timer; manual control of charging by specific gravity and volt ampere methods; tips on steel-tray battery charging; and charging equipment maintenance.

The first section of the handbook contains four pages on the theory of the lead-acid battery. Shown in this section are four captioned line drawings which clearly indicate what goes on when a battery charges and discharges. Text gives basic information on specific gravity changes of battery electrolyte, charging and discharging cycles, positive and negative plate composition, and other battery operation principles which constitute the theoretical background upon which good care and maintenance procedures are based.

Following the theory section are four practical sections—care and operation; maintenance and repairs; parts; and technical data. The care and operation section of the Gould handbook gives instructions for receiving, placing in service, operating, maintaining and charging the storage battery.

Also included in this section are suggestions for the storage and use of hydrometers and thermometers.

Seventeen pages, 15 photographs, and one chart are included in the maintenance and repair section. This section also has been enlarged to include additional photographs and alternate repair methods. Illustrations and text give complete instructions on removing intercell connectors, removing cells from trays, removing elements from cells, installing cell elements into new cell jars, pouring compound to seal cell covers in place, and installing cell connectors. Advice is given for mixing battery acid. A particularly helpful table gives the ratios of parts of water to parts of acid required to obtain given specific gravities when mixing by volume, both with 1.835 and 1.400 specific gravity acids.

The parts section of the handbook not only lists battery parts, but catalogs Gould battery tools for maintaining and repairing batteries and gives illustrations, line drawings, tables and instructions on how correctly to order battery parts.

The technical data section includes eight charts of two general types. Four charts tabulate battery-charger ampere-hour-meter settings required to give the battery the correct charge, depending upon its state of discharge when put on charge. These charts are used when controls are set manually before starting the charge. Four charts catalog battery capacities in terms of ampere-hours, amperes, and kilowatt-hours at both the six-hour and eight-hour discharge rates. The eight charts give data for batteries having from 9 to 41 plates per cell for 8 different battery models.

Copies of the new handbook can be obtained without charge from Gould-National Batteries, Inc., Trenton 7, N. J.

Dexter Dye Assistant

Many actual plant applications of Barisol BRM, Dexter Chemical Corp.'s new dye assistant, have revealed its unequalled sequestering powers for the various pectins and other complex substances normally found in cotton, the firm states. As a wetting agent and dye leveller stable to boiling alkaline

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solutions (refluxing for 24 hours with a three to six per cent caustic solution does not break it down), the product was first introduced for vat and sulphur dyeing of cottons.

A trial of Barisol BRM in the kier by an imaginative mill technician, first revealed its unusual properties for clearing the bath and preventing deposits of scum on the interstices of the fabric. This led to its trial in the caustic solution of the continuous alkaline boil-off where its sequestering action for pectic substances proved even more impressive. Prior to the advent of Barisol BRM, chemical agents used for this process, although satisfactory for wetting, have been unable to cope with formations of scum in the bath, it is claimed.

The product is an organic phosphate of completely new structure, and laboratory investigation has pointed to the peculiar structure of several phosphate radicals built into the molecule, as being responsible for the sequestering action on pectic substances.

Two per cent to three per cent of Barisol BRM on the weight of the goods is said to provide clear baths and excellent dye dispersion in vat and sulphur dyeing. In continuous alkaline boiling-off, one per cent to two per cent on the weight of the goods will clear the bath and permit faster, superior processing of heavy goods.

New G-E Bulletin

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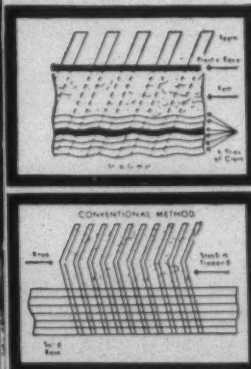
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CARD CLOTHING NEWS AND VIEWS

The Wm. D. Sykes Company, carpet yarn manufacturers, of Philadelphia, has equipped 4 complete sets of cards, in addition to numerous partially clothed sets,—including cylinders, workers and doffers with Strip-O-Matic Card Clothing. These sets have run beside sets equipped with conventional clothing for nearly a year providing accurate comparison on the same stock.

Mr. Roland Kerr, Chief Carder, reports, "We have to strip on conventional clothing every 30-40 hours; each time we remove approximately 8 lbs. of waste. With Strip-O-Matic we make runs of 100 hours without stripping; then remove only about 2 lbs. of waste. Our stripping waste is reduced substantially with Strip-O-Matic. We run wool, nylon, rayon. The improvement with Strip-O-Matic has been uniformly good. Previously we were seldom able to run a complete dye lot. With Strip-O-Matic we can."



PERFORMANCE REPORTS FROM MILLS USING STRIP-O-MATIC

A Chester, Penna. nylon spinner who has run Strip-O-Matic a year without grinding reports—"Nylon takes the pitch out of conventional clothing. This doesn't happen with Strip-O-Matic. We save on maintenance."

"We use Booth Card Clothing exclusively and work closely with their representatives to select the types best suited to our particular needs," writes a producer of worsted and hair cloth yarns.

The president of a custom carpet and knitting yarn manufacturer tells us, "Our situation is complicated by the vast number of different shades we run in small lots. While we need to strip between every batch, Strip-O-Matic pays off for us in two ways. First, waste is greatly reduced; second, stripping is quicker and easier. And, of course, our occasional long runs can now be made without stripping."

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FOR THE TEXTILE INDUSTRY'S USE—

—expansion is now available from the General Electric Co., Schenectady 5, N. Y. Designated as bulletin GEA-5600, the publication outlines methods of obtaining electric power equipment for quick expansion at low cost and with a minimum of critical materials. Use of packaged electrical systems simplifies plant engineering problems, cuts equipment and installation costs, conserves vital materials and manpower, and insures quicker delivery of electrical equipment, according to the bulletin.

The net result, explained in 52 photographs and diagrams, is a safer, more flexible, more dependable, more economical and

more efficient electrical system. The package units, comprised of standardized components, eliminate the need for individually-engineered assembly of piecemeal components. Each package is a complete, factory-assembled unit designed for a specific job and ready for operation the moment it is delivered. This new publication also offers a list of 31 other G-E bulletins giving full information on available equipment for industrial power expansion.

Foster Replaces Equipment

Aging equipment at Foster Machine Co., Westfield, Mass., is "out" before it can slow down production or impair quality. A continuing policy of replacing old equip-

ment with the latest new devices for producing cone winders, tube winders and doublers, and building special machinery for all fibers, keeps the Westfield plant in fine productive form. Important replacements and installations are reported by Foster as just completed or nearing completion.

Included among new machine tools is a Conomatic six spindle automatic, weighing 14 tons. Others listed are semi-automatic drill presses, a bore-matic, milling machines and the latest type of honing machine. Complete re-arrangement of the heat treating department includes installation of new equipment for gas carbonizing, liquid carbonizing and tempering parts that require heat treatment. Facilities for oil and brine quenching have been notably improved. Also renovated is the plating room, where changes include new power input equipment to the copper and nickel electro-plating tanks.

To supplement the plant's present coal burning boiler equipment, installation of a new 84-inch horizontal return tubular boiler developing 288 horsepower, with Todd oil burning equipment and a new 20,000 gallon oil storage tank, is reported. Foster's progressive program of continuous replacement of obsolete equipment is reflected in increased efficiency and improved quality of products, according to company officials.

Safety Council Booklet

As the opening gun in a stepped-up effort to interest small business in the economic and social benefits of accident prevention, the National Safety Council currently is distributing its new booklet, *Safety Pays the Smaller Business*. The council reports that today more than two-thirds of all industrial injuries occur in businesses with fewer than 100 workers. The booklet may be obtained, without charge, from the National Safety Council, 425 North Michigan Avenue, Chicago, Ill.

Glenwood Machinery Associates

Glenwood Machinery Associates, Inc., 384 Glenwood Avenue, East Orange, N. J., has been formed to manufacture and develop special textile machinery. Charles F. Jones, Jr., is president, Helmuth C. Sonntag is vice-president and George Westwater is secretary-treasurer. Mr. Jones was formerly the representative for Kearny Mfg. Co. in New Jersey and Pennsylvania. Mr. Sonntag was a development engineer with Kearny and Mr. Westwater was New England sales representative for Kearny Mfg. Co. One machine under development by the new concern is an entirely new and completely automatic quill polishing machine, details of which will be announced later.

Norcross Bulletin

The Norcross Corp. has made available to the industry its Bulletin V-1000C describing the firm's recording viscometers for manual or automatic control of viscosity as an industrial process control. The bulletin describes the Norcross recording viscometer as "a rugged industrial process control which accurately measures, records, and where desirable, controls solution viscosities from one to 200,000 centipoises." For



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more detailed information write the Norcross Corp., 247 Newtonville Ave, Newton 58, Mass.

Elwell-Parker Booklet

Elwell-Parker Electric Co., Cleveland, O., builder of power industrial trucks, has issued an eight-page pamphlet in its series on industrial logistics. This one deals with use of power trucks in textile mills, describing and illustrating case studies in a number of specific plants. Data relates to

handling of cotton and rayon in storage, processing and shipping. A new type of clamp is described in detail.

New Olive Color

A new vat dye, known as Mayvat Olive T Paste has just been added to the line of vat colors manufactured by Otto B. May, Inc., of Newark, N. J. The result of several years' research, this dyestuff has been brought out to meet the increased requirements of the textile industry for military

dyestuffs. Especially designed for defense requirements, Mayvat Olive T Paste is ideal for uniforms, duck and webbing. The maker states that when used as the olive component of the government O.G.107, O.G.108 and O.D. 7 shades, the goods will meet U. S. Quartermaster specifications. It is stated that the new color is especially fast to light, washing, and chlorine. It has been especially formulated to run smoothly on both continuous machines for piece goods and package machines for yarn both in the pigment and reduced forms.

Serving The Textile Industry

Meadows Manufacturing Company

THE PHENOMENAL GROWTH OF MEADOWS MFG. CO. of Atlanta, Ga., designers and manufacturers of modernizers for spinning and twisting frames, is not



only a tribute to its founder and present head, E. D. Meadows (pictured at left), but is indicative of an industry-wide trend to modernize old equipment as far as it is practical to do so. Mr. Meadows started in business in Hunts-

ville, Ala., in the Fall of 1931 under the trade name of Cotton Twine Banding Works, whose principal business was the manufacture of bands for band-driven spinning frames. Before moving to Atlanta in 1936, however, Mr. Meadows for some years had been experimenting with band-driven tension pulleys, putting his first tension pulleys on the market in 1935. His first patent on tension pulleys was issued in 1936. Impetus to the perfection of this pulley was given by the development of the "Strobotac" by General Radio Co. about 1935, an instrument which for the first time could be used to determine the proper tension required in the band or tape for spindle operation to produce a given size yarn, on a given size ring, etc.

The Meadows ball-bearing band drive pulleys were followed later by the Meadows ball-bearing tape tension pulley. The first

tape drive was introduced in the textile industry about 1916, but did not become too popular until about 1925. These first tape tension pulleys were all of the wooden or plain bearing type. In recent years, the trend has been definitely toward the ball-bearing tape drive.

The advent of World War II in 1941, and the widespread increase in the demand for textiles, greatly stimulated the market for Meadows modernizers. During the war, Meadows devoted 50 per cent of its production to war material, and was granted priorities for both bearings and metals on its textile business, because Meadows modernizers put older-model frames in a position to produce yarns of the quality demanded by the military.

Beginning with tension pulleys, the Meadows line has now been greatly amplified. At present it consists of (in addition to tension pulleys and driving pulleys) ball-bearing cylinder units, ball-bearing jack studs, silent chain drives, separator shields, metal thread boards, lappets, builder motions, cams, steel whorls for spinning and twisting spindles, a complete anti-friction spindle, and most other parts required for spinning and twisting.

Meadows Mfg. Co. began experimenting with plastic in 1947, and put in its own plastic molding department in 1948. The firm now makes plastic tension pulleys and driving pulleys of various types and sizes.

When Meadows Mfg. Co. came to Atlanta in 1936, it had two employees. It now gives



New office building and plastics department building of Meadows Mfg. Co. at Atlanta, Ga.

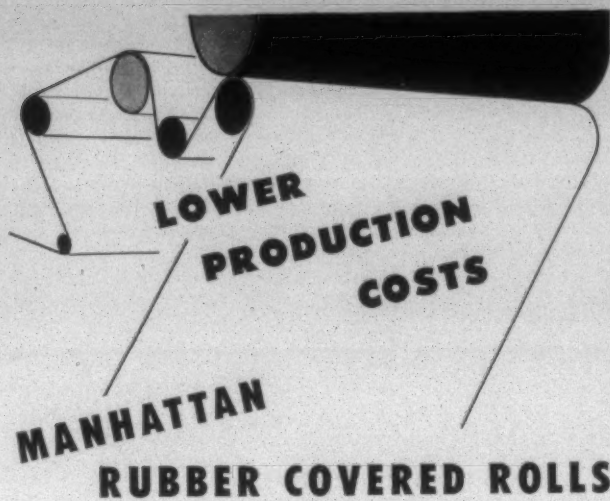
employment to over 90, and recently celebrated the 20th anniversary with the construction of a new general machine shop, which gives 30,000 additional square feet of floor space. The firm is one of the largest manufacturers of modernizers for textile spinning and twisting machinery in the world.

In recent years many mills, particularly the older ones, have been confronted with the problem of what to do to keep production costs in their spinning and twisting departments down, and the quantity and quality of their yarn output, competitive with the more modern mills. In this dilemma, they had two choices: either the replacement of old spinning and twisting frames with new ones, or modernizing old frames so that downtime and power costs could be decreased while quality and production increased. Modernizing in many instances has enabled the mill to salvage a sizable investment, and was also desirable from a tax standpoint.

Spinning and twisting frames are of a rather permanent type of textile machinery—whose normal, useful life-span may be expected to cover a period in which there will be many new methods perfected for improving quality and increasing production, as well as saving power, etc. Meadows growth has shown that the furnishing of "modernizers" for making older frames as nearly competitive with "this year's models," as possible, is a permanent and needed cog in the textile wheel today.



New general machine shop of Meadows Mfg. Co., recently completed, adds 30,000 additional square feet of floor space to the firm's plant.



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S.T.A. Board Sets '52 Convention Date

The board of governors of the Southern Textile Association met Aug. 11 at the Charlotte (N. C.) City Club, set dates for the organization's annual convention next year and made tentative arrangements for Fall meetings of the four divisions.

The 1952 S.T.A. convention will take place June 12-13-14 in the Ocean Forest Hotel at Myrtle Beach, S. C., according to an announcement by President J. L. Delany, general superintendent of Joanna (S. C.) Cotton Mills. Mr. Delany reminded members of the association that, as a result of a decision made by the board this past June, reservations for room accommodations may not be secured until January, at which time the S.T.A. headquarters will send out reservation blanks to mill men who are active members. These blanks may be used by the mill men members for priority on accommodations during a one-month period beginning with date of receipt of the formal convention notice. At the end of this period other persons, including associate members, will be at liberty to secure accommodations according to their particular needs. This priority system was set up at the suggestion of the S.T.A. Associate Members Division, which is composed of sales and service representatives of firms serving the textile industry. Reservations for convention accommodations will not be handled in any case by S.T.A. headquarters; the secretary-treasurer has merely been instructed to operate the priority system, with room reservations to be made direct with the Ocean Forest management by those desiring to attend.

J. E. Shaw (of Rosemary Mfg. Co., Roanoke Rapids, N. C.), chairman of the Eastern Carolina Division, announced that his group would meet Oct. 13 in the Erwin Mills Auditorium at Durham, N. C., this being the date of football games between North Carolina State College and Duke University, at Durham, and the University of North Carolina and the University of South Carolina at nearby Chapel Hill.

Glenn Ward (of Highland Cotton Mills, High Point, N. C.) stated that tentative plans had been made to hold the Fall Northern North Carolina-Virginia Division meeting at High Point Oct. 27.

James A. Chapman, Jr. (of Riverdale Mills, Enoree, S. C.) announced that the South Carolina Division would meet in the School of Textiles building at Clemson College Nov. 3, this being the date of the Clemson College-Wake Forest College football game.

Marshall Rhyne (of Stowe Spinning Co., Belmont, N. C.), chairman of the Piedmont Division, said that his group would meet Nov. 10 in the Charlotte area; the Davidson College-N. C. State football game will be played in Charlotte on that day.

T. I. Stafford of Clifton (S. C.) Mfg. Co., 1951-52 chairman of the S.T.A. board of governors, presided at the meeting held in Charlotte this month. Besides President Delany and Messrs. Shaw, Ward, Chapman and Rhyne, those present included H. C. Estes of Pacific Mills at Rhodhiss, N. C., E. C. Horner of Enterprise Mfg. Co. at Coleridge, N. C., J. L. James of Erwin Mills at Cooleemee, N. C., J. R. Meikle of Rosemary Mfg. Co. at Roanoke Rapids, Walter Vincent of Dan River Mills at Danville, Va. (all current members of the board); S.T.A. Vice-President D. A. Purcell of Fieldcrest Mills at Draper, N. C.; Executive Secretary A. R. Marley, of Erwin Mills, Erwin, N. C.; S.T.A. Past Presidents John M. Caughman of Spartan Mills,

Spartanburg, S. C.; Virgil E. McDowell of Rosemary Mfg. Co., and Marshall Dilling, retired textile executive secretary of Gastonia, N. C.; and David Clark, editor of TEXTILE BULLETIN.

At a subsequent meeting of the association's executive committee, James T. McAden, Jr., editorial director of TEXTILE BULLETIN, was reappointed secretary-treasurer of the Southern Textile Association for another year.

The next meeting of the S.T.A. board was scheduled for Jan. 12, 1952, at Charlotte.

Increased Cotton Consumption Is Cited

In the 11 years from 1939 to 1950, cotton consumption in 55 major uses increased 2,026,080 bales, a gain of 61.2 per cent, Dr. M. K. Horne, Jr., of Memphis, Tenn., pointed out recently at the 12th annual Cotton Research Congress in College Station, Tex.

In 20 of these markets the use of cotton has more than trebled, he noted. Drapery and upholstery fabrics and curtains consumed 167,580 more bales in 1950 than in 1939, topping all users in bales consumed. Cotton rugs were second in total bales consumed and first in percentage of increase—showing a gain of 150,610 bales or a 916.7 per cent. Other top gains in consumption were: automobile uses other than tires, 138,530 bales; electrical insulation, 111,420; men's work trousers, overalls and service apparel, 98,730; feed bags, 97,560; bedspreads, 94,790; children's outerwear, 80,300; and women's coats and jackets, 75,550.

Dr. Horne, director of economic research of the National

Cotton Council, in an analysis of changes in cotton end-use markets during the 1939-50 period, said the rate of progress in the list of 20 uses where gains were greatest was far out ahead of the expansion in the total economy.

Referring to a table in which cotton gains in 55 major uses were listed, Dr. Horne added that over the decade covered by the survey, "cotton has shown some genuine competitive strength."

"Certainly," he said, "we see uses here in which cotton has met head-on competition from paper and synthetics—as well as wool, jute, linen, silk—and has done very well indeed. I do not discount the cases in which we have done poorly, but I suggest that cotton has done better than many people ten years ago would have thought possible, particularly in view of the shift which has occurred in relative prices.

In many individual uses, he declared, synthetic producers tried very hard to conquer cotton's markets and met with reversals. "For illustration, consider women's outer apparel for street and formal wear. These uses, above all others, are the grand strategic prize of fiber competition, for they epitomize the preferences of women. The prestige value of these markets is well recognized. If rayon had been good enough to capture these markets, the needed supply of rayon would have been available for that purpose. Yet the consumption of cotton went up about 100 per cent in street and formal dresses, about 700 per cent in women's suits and skirts, and about 800 per cent in women's coats and jackets."

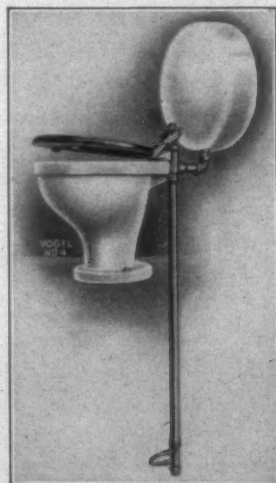
The competitive strength shown in the figures rests pri-

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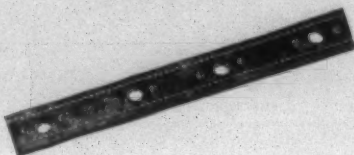
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marily on promotion, inherent quality, research and improved processing, Dr. Horne said. Increased strength of the raw fiber and improvements in adapting spinning, weaving and finishing processes to particular end-uses are two factors which have contributed substantially to market gains.

Special trends in our national economy have had a significant effect on increased consumption of cotton in certain end-uses, the council staff member said. With home building greatly increased, notable gains were made by cotton in such markets as drapery and upholstery fabrics and curtains, rugs, electrical insulation, mattress felts, window shades and venetian blind tapes, slip covers and bed ticking.

From 1940 to 1950 the number of people under ten years of age in this country grew approximately 40 per cent. Correspondingly, the use of cotton in children's and infants' apparel increased by 87,000 bales.

Dr. Horne said that from the evidence obtainable it seems clear that an increase in low per capita incomes tends to bring a sharper percentage increase in fiber consumption. After food, the interest of people in low income brackets turns to clothing. Noting that incomes in this country are rising steadily, he said that it is very unlikely that rising per capita incomes will have a fully commensurate increase in the quantity of fiber for clothing and household articles.

"Over-all, the total domestic fiber market does not increase as fast as the total real income in this country today. With this picture on the demand side, and with competition increasing steadily on the supply side, we can look forward to a future in which the contest for markets steadily will become more intense.

"We cannot depend on an expanding economy to give us ever-widening markets in the future. We cannot depend on the law of averages to give us a good competitive position in the market as a whole. As competition becomes ever tighter in the years ahead, we must sharpen our knowledge of the special trends that affect fiber consumption and intensify our study of market requirements use by use."

Rayon Shipments For July Listed

Rayon shipments by producers to domestic consumers during July totaled 106,900,000 pounds, a loss of 2½ per cent compared to the previous month, according to the *Rayon Organon*, statistical bulletin of the Textile Economics Bureau, Inc. Viscose high tenacity yarn shipped in July totaled 28,000,000 pounds, a figure equal to the June shipments, and 5½ per cent more than the average monthly shipment for the first half of 1951. Viscose+cupra textile yarn shipped in July totaled 25,400,000 pounds, compared with 26,400,000 pounds shipped in June, and seven per cent under the first half-year average monthly shipments. Acetate yarn deliveries in July totaled 25,600,000 pounds, compared with 29,100,000 pounds in June and 5½ per cent under the half-yearly monthly average. Staple+tow shipments in July amounted to 27,900,000 pounds, compared with 26,000,000 pounds in June and five per cent more than the half-yearly monthly average.

Producers' stocks of rayon increased 44 per cent from the end of June to the end of July. Stocks on July 31 were 24,300,000 pounds of which viscose high tenacity yarn totaled 1,900,000 pounds, viscose+cupra textile yarn 10,500,000 pounds, acetate yarn 7,000,000 pounds, and staple+tow 4,900,000 pounds.

The increase in producers' inventories reflects the decline in mill buying of rayon during July, the *Organon* points

out, and the curtailment of fabric production resulting from extended vacations and going from six-day three-shift operation to five and four-day two-shift operation. The curtailment may suggest that July woven goods output may be down to 50 per cent of that of April or May.

A study of second quarter rayon production by the *Organon* reveals that in the April-June period, all records were broken with a total output of 336,900,000 pounds, three per cent more than that of the first quarter of 1951, and two per cent more than the previous record in the fourth quarter of 1950. The quarterly total, incidentally, it is pointed out, would mean an annual rate of 1,350,000,000 pounds.

An all time high record was registered for filament yarn with an output of 254,200,000 pounds which was two per cent greater than the previous peak in the fourth quarter of last year. Viscose+cupra textile yarns (regular and intermediate tenacity) was at an all time record level of 85,800,000 pounds, two per cent more than the previous peak production in the first quarter of 1951. Viscose high-tenacity yarn output was up slightly over the first quarter but still one per cent under the record fourth quarter 1950 output.

The principal production increase came in the acetate filament yarn which totaled 87,200,000 pounds in the second quarter of 1951, an increase of $3\frac{1}{2}$ per cent over the record fourth quarter of 1950. Similarly, over-all production of rayon staple+tow which amounted to 82,700,000 pounds was at a new high level, being three per cent greater than the record first quarter of 1951. However, viscose+cupra staple output at 48,600,000 pounds was two per cent under the record first quarter 1951 figure, while acetate staple at 34,100,000 pounds was seven per cent over the record fourth quarter of last year.

During the second quarter of 1951, viscose high-tenacity comprised 24 per cent of total rayon output compared with $24\frac{1}{2}$ per cent for the year 1950 and 29 per cent of 1949. Viscose+cupra textile yarn output in the second quarter comprised $25\frac{1}{2}$ per cent of the total rayon yarn as against 25 per cent in 1950 and $25\frac{1}{2}$ per cent in 1949. Acetate yarn's percentage of the total in the second quarter was 26 per cent which was identical with the year 1950 and 1949. Viscose+cupra staple and tow's percentage of the total in the second quarter amounted to $14\frac{1}{2}$ per cent compared with 15 per cent in 1950 and 13 per cent in 1949. The percentage of the total registered by acetate staple was ten per cent for the second quarter compared with $9\frac{1}{2}$ per cent in the year 1950 and $6\frac{1}{2}$ per cent in 1949.

Total rayon filament yarn shipments in the second quar-

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ter amounted to 249,900,000 pounds, three per cent more than shipments in the first quarter of 1951 but one per cent under those of the record fourth quarter of 1950. With the exception of circular knitgoods and tires and related uses, shipments of rayon to the various trades in the second quarter closely approximated the over-all increase in shipments from the first quarter. A softening of demand brought about a nine per cent decline in the circular knitgoods rayon deliveries. Shipments for tires and related uses showed practically no change from first to second quarter due to lack of available supply of high-tenacity yarn of suitable quality. Producer-held inventory of high tenacity yarn showed no change over the quarter and the demand for tire yarn continues tight.

There was a 22 per cent increase in producer exports which is noteworthy, according to the *Organon*. The second quarter exports of yarn is the largest since the fourth quarter of 1949.

Percentages of total textile type yarns shipped to the various trades in the second quarter were as follows: hosiery one per cent; circular knitgoods five per cent; warp knitgoods 61½ per cent; broad woven goods 81 per cent; narrow woven goods two per cent; and miscellaneous uses 4½ per cent.

Average denier of yarn shipped in the second quarter for tires and related uses was 1,571 compared to 1,568-denier for the first quarter. By principal denier group, tire yarn shipments in the second quarter were 1,100-denier, 14 per cent; 1,650-denier, 81 per cent; and 2,200-denier five per cent. Average denier of viscose-cupra textile yarn shipments in the second quarter was 141-denier, a notable increase from the 134 average of the first quarter. Average denier of acetate filament yarn shipments in the second quarter was 103 compared with 102 in the first quarter.

The *Organon* has compiled a list of companies who have been granted certificates of necessity by the National Production Authority to build new or additional facilities for the production of man-made fibers or dissolving wood pulp. The list does not include a few certificates which have been granted to rayon producers for such purposes as plant repair and laboratory extension. The *Organon* has found in addition that certificates of necessity have been granted to 38 producers of chlorine and caustic soda in the amount of \$233,000,000. It found also that ten producers of sulphuric acid have been granted certificates of necessity in the amount of \$23,000,000 for expanded facilities. Also located were eight producers of anhydrous ammonia who were allowed certificates in the amount of \$54,000,000, and it is understood that certificates have been granted to producers of carbon bisulphide.

Imports of rayon staple in June totaled 9,619,000 pounds, according to the *Organon*, a notable increase over the low May figure of 5,022,000 pounds. June was the largest month in 1951 for staple imports with the exception of January. More than half of the June imports came from Germany. Staple imports for the first six months of 1951 totaled 47,958,000 pounds, an increase of 33 per cent over the corresponding period in 1950.

The largest supplier of staple in the first half of the year was Germany with 28½ per cent of the total, followed by Italy with 10½ per cent; France 9½ per cent, and Switzerland 8½ per cent, United Kingdom eight per cent, Austria, Norway and Sweden seven per cent each, and 14 per cent from all other countries.

Imports of rayon filament yarn in June were down to

123,000 pounds, the lowest monthly figure for 1951. Nearly half was supplied by the United Kingdom and the balance was principally from the Netherlands and Switzerland. Imports of rayon filament yarn for the first six months of 1951 totaled 4,854,000 pounds, compared with 391,000 pounds in the corresponding period of 1950.

Ga. Textile Education Foundation To Meet

The tenth annual meeting of the Georgia Textile Education Foundation, Inc., will be held in Atlanta, in the Harrison Hightower Auditorium of the A. French Textile School, Georgia Tech, on Saturday, Oct. 20, according to an announcement by T. M. Forbes, foundation secretary.

Lawrence R. Brumby, vice-president of Bibb Mfg. Co., Macon, Ga., and 1951-52 president of the foundation, has appointed Morris M. Bryan, Jr., president of Jefferson (Ga.) Mills, to act as program chairman for the October meeting. Serving with him will be Frank B. Williams of West Point (Ga.) Mfg. Co.; J. R. Newell of Mandeville Mills, Carrollton; L. G. Hardman, Jr., of Harmony Grove Mills, Commerce; and N. Barnard Murphy of Riegel Textile Corp., Trion, Ga.

Established in 1942 to aid in the advancement of textile education in the South, and particularly at the Georgia Institute of Technology, the foundation, under the leadership and inspiration of the late William Hightower of Thomaston (Ga.) Mills, obtained contributions of approximately \$600,000 from Georgia mills.

When public funds were provided for the construction of a new textile engineering school at Tech, after members of the foundation had worked persistently with the General

Assembly, Board of Regents and other state officials toward that goal, the Georgia mills raised another \$250,000 with which they purchased new machinery and equipment for the new building, including air conditioning and many other modern features.

In the past, annual meetings of the foundation have been held in conjunction with the conventions of the Cotton Manufacturers Association of Georgia. However, it has been decided to schedule separate meetings in the future to give the foundation sessions added significance and importance.

Present officers of the Georgia Textile Education Foundation are: president, Lawrence R. Brumby, vice-president, Bibb Mfg. Co., Macon; vice-president, M. M. Bryan, Jr., president, Jefferson (Ga.) Mills, Inc.; treasurer, George H. Hightower, vice-president, Thomaston (Ga.) Mills; secretary, T. M. Forbes, Cotton Manufacturers Association of Georgia, Atlanta.

Dr. J. L. Vaughan Elected Head Of I.T.T.

Roger Milliken, chairman of the board of the Institute of Textile Technology, Charlottesville, Va., has announced the election of Dr. J. L. Vaughan as president of the institute. Dr. Vaughan has been a member of the University of Virginia Engineering Department staff for the past 21 years and has served as consultant to the institute for the past four years. During the last year, he has been chairman of the committee on academic studies and a member of the executive committee. He has had wide experience in organizing industrial training programs and is well known in industry as a specialist on educational problems related to

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business organization. Dr. Jack Compton, technical director, will continue to direct the research program of the institute. T. L. W. Bailey, widely known throughout the textile industry, has been appointed assistant to the technical director in charge of mill contact work and Dr. Laconla Hance will become chairman of the committee on academic studies.

Bahnson Maintenance Class Slated In October

The Bahnson Co., Winston-Salem, N. C., announces its annual Operating and Maintenance Engineers Classes, to be held at the Robert E. Lee Hotel in Winston-Salem during the weeks of Oct. 1-5 and Oct. 15-19, 1951. These classes are designed to assist operating personnel to become more familiar with their air conditioning and refrigeration systems. Classes are open to all and there is no charge. Companies sending men will pay their expenses only. The first week of classes will cover evaporative cooling systems while refrigeration systems will be covered the latter week.

All industrial and commercial firms operating or contemplating purchase of air conditioning systems should avail themselves of this opportunity for training their personnel in the operation and maintenance of such equipment. For complete information, address Department S, The Bahnson Co., Winston-Salem, N. C. Closing date for reservations is Sept. 15.

Name Advisory Board For Maintenance Show

Seventeen industry executives, representing major sections of the plant maintenance field, will serve as an advisory board for the Plant Maintenance Show to be held at Convention Hall, Philadelphia, Pa., Jan. 14-17, 1952. L. C. Morrow, consulting editor, *Factory Management and Maintenance*, New York, is chairman.

Included among those on the advisory board are B. E. Boyd, vice-president, Owens-Corning Fiberglas Corp.; C. J. Copley, advertising department, Socony-Vacuum Oil Co., Inc.; S. W. Corbin, assistant manager, industrial divisions, General Electric Co.; Howard F. Eastwood, vice-president and secretary, Barreled Sunlight Paint Co.; Orville C. Hoglander, vice-president and sales manager, G. H. Tennant Co.; H. R. Meyer, manager, maintenance sales department, Westinghouse Electric Corp.; D. C. Miner, advertising manager, E. F. Houghton & Co.; C. F. Radley, director of publicity, Oakite Products, Inc.

Concurrently with the show, a conference on plant maintenance will be held. Advance registration cards and hotel accommodations may be obtained from Clapp & Poliak, Inc., 341 Madison Avenue, New York 17, N. Y.

Drop Quantity Limits For Cotton Exports

Following release of the Crop Reporting Board's first 1951 cotton production estimate of 17,266,000 bales, Secretary of Agriculture Charles F. Brannan announced establishment of an open-end export quota for all types of raw cotton. Under the open-end quota, there will be no restriction on quantities of cotton that can be shipped under export licenses. A preliminary export allocation of 3,500,000 bales has been in effect for the early months of the marketing season.

The immediate action to open up cotton exports without quantitative restrictions is in line with Secretary Brannan's previous announcement, at the time the preliminary allocation was established, that it would be the policy of the de-

partment to provide for the export of all cotton not required for domestic consumption and maintenance of minimum reserves.

In making his announcement, Secretary Brannan said, "The splendid response of cotton farmers in the South, Southwest, and Far West to the urgent need for increased production is very gratifying. The first official report on the 1951 crop indicates production substantially above the minimum goal of 16,000,000 bales. This achievement by individual producers throughout the cotton-growing area has greatly furthered the over-all defense effort.

"As I said on June 12, when I announced the first cotton export allocation, the total quantity of cotton to be allocated for export could not be determined until after official estimates of 1951 acreage and production became available and total domestic requirements were more clearly defined. The production report released Aug. 8 indicates the probability that supplies of cotton during the 1951-52 season will be adequate to meet all foreseeable domestic requirements, and, at the same time, allow unrestricted exports.

"Export licensing under the open-end quota will be continued. This will enable the department to keep the supply situation under constant review."

The Office of International Trade, Department of Commerce, has been authorized by the Department of Agriculture to extend the validity period, on all licenses issued under the quota, through July 31, 1952.

Textile Quality Control Group To Meet

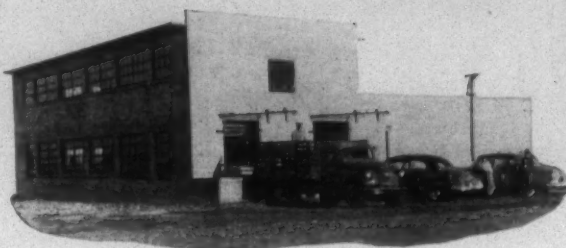
The Textile Quality Control Association will hold its first meeting Oct. 12 at Clemson College, S. C. Program details are being completed by the board of governors and will be announced soon. The Textile Quality Control Association was established last April by a group of quality control technicians, most of them representing textile plants, at a meeting at North Carolina State College in Raleigh.

Carded Yarn Association To Meet Oct. 4-5

The Carded Yarn Association will hold its annual convention Oct. 4-5 at Pinehurst, N. C. Listed as one of the principal speakers for the event is Robert C. Jackson, executive vice-president of the American Cotton Manufacturers Institute.

Directors of the association, at a quarterly meeting last month in Charlotte, N. C., elected Ernest Rees, Jr., of Elk

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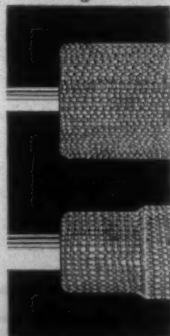
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Cotton Mills, Fayetteville, Tenn., a member of the executive committee and Claud M. Elrod of Boaz (Ala.) Mills as a member of the board. They replace R. C. Forrest, who is resigning as an official of California Cotton Mills, Uniontown, Ala., to join the Philadelphia Textile Institute.

Officers of the Carded Yarn Association are D. R. LaFar, Jr., of the LaFar group of mills, Gastonia, N. C., president; E. Owen Fitzsimons, executive vice-president; J. Craig Smith of Avondale Mills, Sylacauga, Ala., vice-president.

\$418,545,000 Spent On Plants In 1949

Textile mill products manufacturers spent \$418,545,000 for new plant and equipment in 1949, with the accent on new machinery and equipment rather than on new structures and additions to plant, the Census Bureau reported July 23 in its 1949 annual survey of manufacturers.

In the textile mill products category, expenditures on new plant and equipment in 1949 of \$418,545,000 compared with \$367,510,000 in 1947. Broken down, the 1949 expenditure included \$76,214,000 for new structures and additions to plant and \$342,331,000 for new machinery and equipment. The 1947 spending included \$104,706,000 for new structures and additions to plant and \$262,804,000 for new machinery and equipment.

In 1949, producers of woolen and worsted manufactures laid out \$40,591,000 for new plant and equipment, of which \$6,354,000 went for new structures and additions to plant and \$34,237,000 for new machinery and equipment. Compared with this, in 1947 they spent \$50,009,000 on new plant and equipment, of which \$14,921,000 went for new structures and additions to plant while \$35,088,000 was plowed into new machinery and equipment.

Yarn and thread mills (except wool) expended \$26,907,000 in 1949 on new plant and equipment. The total included \$4,528,000 for new structures and additions to plant and \$22,379,000 for new machinery and equipment. In 1947, they spent \$36,647,000 for new plant and equipment, including \$13,869,000 for new structures and additions to plant and \$22,778,000 for new machinery and equipment.

Manufacturers of cotton and rayon broad woven fabrics spent a total of \$161,682,000 in 1949 for new plant and equipment, of which \$31,941,000 represented money for new structures and additions to plant and \$129,741,000 new machinery and equipment. In 1947, they expended a total of \$121,653,000, of which \$36,551,000 represented new structures and additions to plant and \$85,102,000 new machinery and equipment.

Knitting mills in 1949 earmarked \$101,802,000 for new plant and equipment—but breakdowns were not available because the standard error of the estimates exceeded 15 per cent, the Census Bureau explained. In 1947, they spent \$81,765,000 for new plant and equipment, of which \$16,957,000 went for new structures and additions to plant and \$64,808,000 for new machinery and equipment.

Manufacturers of finished textiles, except wool, reported spending a total of \$37,088,000 in 1949 for new plant and equipment—\$13,667,000 for new structures and additions to plant and \$23,421,000 for new machinery and equipment. Correspondingly, they expended \$22,668,000 in 1947, of which \$7,600,000 for new structures and additions to plant and \$22,068,000 for new machinery and equipment.

Better Flameproof Cotton Fabrics Sought

An extensive program of chemical research to develop better flameproof cotton fabrics is being undertaken for the Army Quartermaster Corps by the U. S. Department of Agriculture. The investigations are already under way at the Southern Regional Research Laboratory in New Orleans, La.

Practical methods that can be applied commercially at reasonable cost to make the fabrics permanently flameproof without imparting undesirable properties are being sought, according to Dr. G. E. Hilbert, chief of the Bureau of Agricultural and Industrial Chemistry. Such cotton fabrics are needed greatly by the Army for clothing and tentage and by civilians for many purposes such as clothing, draperies, curtains and other household articles.

During recent years, Dr. Hilbert emphasized, great strides have been made in flameproofing techniques to meet this demand for non-burning textiles. However, the existing military requirements and a possible increase in future requirements for civilians, as well as for the armed forces, make further improvements essential at this time. Dr. Hilbert said there is a great need, especially, for treatments that remain effective after laundering, yet do not weaken the material or cause stiffness, stickiness, increased weight, or other objectionable changes. These treatments also must be harmless to human beings, and should utilize chemicals that can be readily obtained.

Will Harriss Completes 55 Years In Textile Industry

William H. Harriss of the "Sanforized" Division of Cluett, Peabody & Co., Inc., has rounded out 55 years in the textile industry. His experience is broad and varied.

He was born Aug. 2, 1877, on the family cotton plantation named "Fontena" in Warren County, North Carolina. After his early schooling in nearby Warrenton, he graduated from North Carolina State College in Raleigh, receiving B.A. and M.E. degrees.

He immediately started his textile career in 1896 with the D. A. Tompkins Co. of Charlotte, N. C., pioneers in building cotton mills and cotton seed oil plants throughout the South. After some two years with Tompkins, he joined the Draper Co. of Hopedale, Mass., where he passed an apprentice period through the shops, subsequently going to Atlanta to assist their sales force, principally in promoting the introduction of the then new automatic loom.

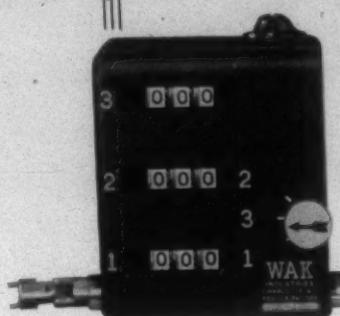
Following several years with Draper, he took a trip abroad, visiting textile interests in Manchester, England, and also the Paris Exposition of 1900 where there was a splendid exhibit of textile machinery, exceeded only by the recent ones in Atlantic City and Lille, France.

Returning home, he became the editor of the old *Textile Excelsior* of Charlotte, the first textile paper in the South. In 1902 he took charge of the Atlanta offices of Stuart W. Cramer of Charlotte, whose principal business was representative of the Whitin Machine Works of Whitinsville, Mass.

Mr. Harriss cites an interesting occurrence about this time. In 1903 the textile business was bad. Few of the Southern mills were making money. Trusts and combines were being discussed for industry. Col. Henry Fries, the banker at Winston-Salem, N. C., thought this might be the answer for the suffering mills and so organized The Fries Syndicate to combine any mills that might want to come in;

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many of them showed a disposition to join, but naturally Colonel Fries had to know the fair value of each mill property and Mr. Harriss was his appraiser. Based on his reports, short options were taken. However, before Wall Street finances could be securely arranged, the textile market picked up, the options could not be renewed, and the whole endeavor fell through except for three small mills which were later taken over by the Blythe interest in Philadelphia and organized into the Bellevue Mills Co. which Mr. Harriss managed until he went to Pawtucket, R. I., as treasurer and agent of the Slater Cotton Co., one of the Sayles' interests.

While at Slater for some six years, he became acquainted with many New England mills and owners of plants, also was a director in several companies and textile associations, together with membership in many clubs and entered general social activities. In other words, as he states, he became somewhat of a Southern Yankee.

During World War I he went to Washington as chief inspector of cotton textiles for the Quartermaster Department. It was at this time that he assisted Dr. Walker, the then chairman of the Federal Trade Commission, in finding the cost of manufacturing cotton goods so that Mr. Brook- ing of the War Industries Board could fix fair base prices on them for the industry after conference with mill commit- tees from the South and New England. Later Mr. Harriss opened an office in New York to promulgate prices on individual constructions pro rata to Mr. Brook- ing's datum fixations. As these prices were issued, they were published in the *Daily News Record* and thus became official for the trade.

After the war Mr. Harriss remained in New York with various textile brokerage and commission interests and de- veloped new fabrics for mills, such as West Boylston, the Amoskeag Mfg. Co. and Andrew McLean Co.

It was during this period that he became aware of the lack of any tolerance rules for the sale of cotton goods in the grey. After conferring with many converters and mills as to what was needed for fairness to all parties, he came out with his 14-point standard sales note, giving tolerance allowances on all primary matters at issue. These results were all published by Harry Reimer in the *Daily News Record* and in many regards this was the forerunner of the now well-known Worth Street Rules.

During N.R.A. days, Mr. Harriss was textile consultant for the Cotton Garment Code Authority and in 1935 joined the "Sanforized" Division of Cluett, Peabody & Co., Inc., in the same capacity where he is today and going strong.

During his long haul in the cotton textile business, Mr. Harriss has seen many improvements but thinks most of them have been just refinements of existing processes. In fact, he feels there have been only three real basic ones during the last 100 years. First, in 1850, John Mercer in England came out with his caustic soda treatment to stabil- ize, increase dye affinity, and add luster to cotton fabrics, known today as Mercerizing. Then just before the turn of this century, the Draper Co. brought out its automatic loom that has so drastically reduced the cost of weaving. Finally, in recent years, Sanford Cluett patented his method of rapidly shrinking textile piece goods by mechanical com- pression with the result that, for the first time in history, cotton garments can now be made so as not to shrink out of fit upon being laundered. Today the "Sanforized" label is known around the world. Mr. Harriss gets satisfaction

from the fact that he had a hand in the promotion of the two last named basic improvements.

While he also gets satisfaction from reviewing his 55 years in the textile business, his real interest now is in the present and the future where he can envisage many changes—but that is another story.

How To Prevent Truck Failures

The *Care & Maintenance of Industrial Trucks*, important in protecting your investment and assuring continuity of service, is the subject of a manual just published by the Baker Industrial Truck Division of the Baker-Raulang Co., Cleveland, Ohio. In the interest of more efficient, more continuous and more economical service from industrial trucks, this 16-page bulletin contains 51 illustrations of the steps to be taken in preventive maintenance and annual check-ups. Because of the high current labor rate and the scarcity of good skilled labor, major overhaul jobs should be kept to a minimum. With the mounting costs of essential wearing items, these materials should be conserved as much as possible. It is just plain common sense to make the substantial savings that truck preventive maintenance affords and this manual tells how.

Britannica Cites Activity Of Dye Industry

The augmented industrial activity of all color-consuming industries during the year 1950 was reflected in a marked step-up in the production and sale of dyes, according to the 1951 *Britannica Book of the Year*. The Encyclopaedia Britannica annual reports that the rise of production of dyes started the latter part of 1949 and continued strong throughout 1950. The national preparedness program resulted in heavy consumption of certain types of fast dyes for coloring fabrics for the armed services.

Perhaps the most talked-of development in the application of dyes during 1950, according to the Britannica year-book, was the Standfast continuous dyeing machine for vat dyes, in which the impregnation and fixation of the dyestuff was brought about by passage of the cloth through molten metal of a type that melts at a temperature under the boiling point of water.

L. E. Morris, editor, *Dyer, Textile Printer, Bleacher and Finisher*, London, England, contributed part of the article on "Dyestuffs" to the 1951 *Britannica Book of the Year*. The *Britannica Book of the Year* is an annual million-word publication, covering the preceding year's principal events, designed to keep owners of the *Encyclopaedia Britannica* and of *Britannica Junior* abreast of current developments.

Cold Chemical Cleaning Of Spindles

Removal of lint, dust, talc, grease and related dirt from the spindles of spinning frames often involves considerable trouble. Complete cleaning with ordinary cleaning compounds has heretofore been based on boiling solutions, with the time of cleaning for a batch of spindles of at least one hour. Even then, there was a tendency for some dirt to remain. This is not too serious a problem if the spindles are to be disassembled, inspected and repaired. But, where the job is one of cleaning spindles thoroughly for immediate replacement in a frame, really thorough cleaning is a must.

The Magnus Chemical Co. of Garwood, N. J., announces a new method for cleaning these spindles, using a new solvent type of cleaner originally developed for cleaning



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A LEAF FROM THE ALBUM OF E.C.A. MISSION TO ENGLAND—On May 30 the American Cotton Productivity Team, which studied British textile manufacturing under sponsorship of the Economic Co-operative Administration, paid a visit to Platt Bros. (Sales), Ltd., at Oldham, one of the Textile Machinery Makers, Ltd., group of companies represented in the United States by Atkinson, Haserick & Co. of Boston, Mass., and Charlotte, N. C.

Left to right in this picture are: J. Collins of Platt Bros.; Chandler Robbins of Bates Mfg. Co., Lewiston, Me.; E. C. Marland of Platt's; Allen E. Gant of Glen Raven (N. C.) Cotton Mills; E. Howercroft of Textile Machinery Makers and Accessories Export Group; Horace Pratt of Mt. Vernon-Woodbury Mills, Columbia, S. C.; Hugh Moseley of the United Textile Workers of America; B. A. P. Dobson of Platt's; John Lefevre of the U.T. W.A.; H. H. Clinch of Platt's; G. H. Dunlap of the North Carolina State College School of Textiles, Raleigh; Sinclair Horne, representative of the Anglo-American Council on Productivity; C. C. Dawson of Burlington Mills, Cramerton, N. C.; A. F. H. Aitken of Platt's; G. Hardman of Platt's; G. L. Randall of Platt's; F. Sugden of the British Cotton Board; Jesse Hart of Joanna (S. C.) Cotton Mills; and T. W. Bellis of Platt's.

carbonized oil deposits from airplane engine parts and diesel engines. This cleaner, Magnus 751, works very effectively in cold solution and is completely harmless to metals and fibers. Mixed with water in the proportion of two parts Magnus 751 to one part water, a cleaning solution is obtained which will thoroughly clean spindles in one-half hour. This is on the basis of simply dropping the spindles into a tank containing this solution and leaving them there for 30 minutes. If the volume to be cleaned exceeds the rate at which the cleaned spindles are re-used, they can be left in this solution for longer periods without damage, being removed as needed. A simple water rinse, or a rinse in safety solvent puts them into shape for use immediately after cleaning.

Where it is desired to clean spindles at a faster rate in this solution, one of the Magnus Aja-Dip cleaning machines

should be used. In this machine the work is moved up and down in the solution many times a minute, adding a powerful mechanical cleaning action to that of the cleaner. Spindles are completely cleaned with No. 751 in one of these machines in less than 15 minutes. These Aja-Dip machines are available in a wide range of sizes, from the Miji-Dip with a capacity of one gallon of solution, to very large machines, capable of handling a ton of parts at a batch.

Article Outlines Package Dyeing Methods

Important aspects of package dyeing are outlined in an article in the August issue of *Dyelines and Bylines*, official publication of American Cyanamid Co., Calco Chemical Division. The article states:

"Contemporary equipment and procedures for dyeing

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yarn in packages wound on perforated tubes or springs are highly efficient in their use of dyes, chemicals, water, steam, and manpower and they deliver dyed yarn of excellent quality with respect to color distribution, color fastness, and behavior in subsequent manufacturing processes.

"Recent models of package dyeing machines circulate from three gallons to six gallons of liquor per pound of yarn per minute depending on the design. A few installations with variable speed pump drives, flow meters, pressure gages for the inflow and outflow pipelines, and jacketed kiers permit adjustment of dyeing conditions to any predetermined conditions, and allow inspection of these conditions during the dyeing processes. Provision for feeding steam, compressed air, and a continuous flow of rinse water to the kier to improve or speed up wetting, extraction, and rinsing operations saves time and facilitates the production of level and clean dyeings.

"In the regular pigment method, highly dispersed vat dye is circulated through the packages at 180° F. to 200° F. Then usually at the same temperature, caustic soda and sodium hydrosulfite are added and reduction and fixation of dye occurs. If jacketed kiers are available so that quick lowering of temperature is possible, the reduction and fixation steps are sometimes carried out in cooling baths or at temperatures below those used in pigmenting.

"In a variation of the pigment method, sodium nitrite is added to the dyebath just before the sodium hydrosulfite is added and while the bath is at a temperature of 180° F. or above. Superior levelness and the substantial elimination of shade change due to leuco decomposition is obtained with certain dyes such as the anthraquinone vat blues.

"For certain shades which are unusually difficult to dye levelly, a retardant such as magnesium lignin sulfonate is added to the dyebath before the sodium hydrosulfite.

"When applying vat dyes to spun viscose packages, the procedure is modified so that the cold pigment dispersion permeates the dry packages before the pump is started and before the viscose yarn has time to swell and make hard packages. When dyeing certain multi-ply, coarse or hard twisted yarns, the hot pigment dispersion is the initial bath which circulates through the packages, thereby increasing penetration and minimizing crossovers.

"In addition to the above dyeing procedures, the vat-acid method and several reduced dyeing procedures are available. Thus a choice of many dyeing methods and newer types of equipment greatly assist the contemporary package dyer in his endeavor to produce a quality product at minimum cost."

Material handling supervisors, receiving and shipping foremen, traffic engineers, and production executives will be interested in the new Lamson, two-reel talkie giving typical conveyor applications in 14 different industries. The film, "Conveyors That Pay Dividends," illustrates how specific companies within these industries apply conveyors to save time, money, and man-power and how they speed handling operations, decrease confusion, and increase production by improving handling methods.

The film covers conveyor applications in receiving, temporary storage, production, warehouse storage, and shipping operations. Interested groups can arrange to procure the film, "Conveyors That Pay Dividends," by writing to J. S. McCullough, Sales Promotion Manager, Lamson Corp., Syracuse, N. Y.

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New Standards For American-Egyptian Cotton

The U. S. Department of Agriculture has announced revised grade standards for American-Egyptian cotton. The revised standards will officially supersede the two sets of standards for American-Egyptian cotton now in effect: one for the Pima variety and one for the SxP variety. The new standards will be effective on and after Aug. 1, 1952.

Grade characteristics of American-Egyptian cotton have changed considerably since the promulgation of the present standards for Pima and SxP on March 19, 1940. The new standards for American-Egyptian cotton were prepared on the basis of a survey of the 1950-51 crop of this cotton and the knowledge that production of cotton of the variety represented in the Pima standards has long since ceased. Also, production of the SxP variety, for which standards were prepared at the last American-Egyptian standards meeting, is rapidly being replaced by Pima 32 and Amsak varieties. The new proposed standards were unanimously approved by a group representing producers, merchants and mills which met in Washington on June 25, 1951.

The standards consist of ten grades—nine represented in physical form and one descriptive. Boxes of standards by grades will be sold at \$3 per box f.o.b. Washington for shipment to purchasers in the United States or \$4 delivered to destination. A complete set of boxes will cost the purchaser in the United States \$27. Order blanks may be secured from the Cotton Branch, Production and Marketing Administration, Washington 25, D. C.

The staple length standards applicable to American-Egyptian cotton remain unchanged. Types are issued for the lengths $1\frac{3}{8}$ -inch, $1\frac{1}{8}$ -inch, $1\frac{1}{2}$ -inch, $1\frac{9}{16}$ -inch, $1\frac{5}{8}$ -inch and $1\frac{3}{4}$ -inch.

U.S.D.A. Initiates Three New Research Projects

Three new research projects to improve the utilization of cotton are being initiated by the U. S. Department of Agriculture under Research and Marketing Act contracts, which will be supervised by the Southern Regional Research Laboratory, a unit of the Bureau of Agricultural and Industrial Chemistry, in New Orleans, La. These contracts are part of U.S.D.A.'s over-all research program to improve the efficiency of cotton processing operations and to enhance the fiber's usefulness.

Under one of these new contracts, the Institute of Textile Technology in Charlottesville, Va., which recently discovered and established the effectiveness of carboxymethylcellulose as an anti-soiling treatment and aid to cleaning by laundering, will attempt to develop more effective methods of dry cleaning cotton textiles. It is believed that such methods will enhance the competitive position of cotton in many uses that are now restricted because of dry cleaning difficulties.

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cleaning of mechanically harvested cottons, the Clemson Agricultural College, Clemson, S. C., will investigate the feasibility of applying electrostatic forces to obtain more effective separation of trash from the lint and to develop a method of aligning the fibers in a form suitable for further textile processing. The results of this study will supplement research under way at the Southern Laboratory on mechanical and ultrasonic methods of cleaning.

Studies to develop an apparatus using small samples for predicting the number of neps that will be formed during the processing of cottons of various nepping characteristics are being undertaken by the School of Textiles at the North Carolina State College of Agriculture and Engineering, Raleigh. This agency recently completed a study greatly expanding the existing information on nepping.

As is the case with all R.M.A. contracts, the results of research on these new projects will be made available jointly by the Department of Agriculture and the contracting agency.

Carded Cotton Sales Yarn Advisory Committee

The National Production Authority, U. S. Department of Commerce, recently announced the membership list of the carded cotton sales yarn industry advisory committee as follows: J. Craig Smith, executive vice-president, Avondale Mills, Sylacauga, Ala.; G. P. Barnwell, general sales manager, Bibb Mfg. Co., Macon, Ga.; Phillip Dana, treasurer, Dana Warp Mills, Westbrook, Me.; J. A. Cooper, president, Henderson (N. C.) Cotton Mills; Robert N. Adair, president, January & Wood Co., Maysville, Ky.; J. Boyce Choate, president, Piedmont Mop Co., Charlotte, N. C.; E. N. Brower, president, Rockfish-Mebane Yarn Mills, Inc., Hope Mills, N. C.; Hyman L. Battle, treasurer, Rocky Mount (N. C.) Mills; C. V. Garth, vice-president, Shuford Mills, Hickory, N. C.; R. C. Kane, president, Tennessee Line & Twine Co., Elizabethton, Tenn.; H. M. Jones, president, Waverly Mills, Laurinburg, N. C.; D. R. LaFar, Jr., president, Waxhaw (N. C.) Mfg. Co.

The Southeastern Personnel Conference will be held this year at Duke University, Durham, N. C., Sept. 10-12. The committee in charge feels that it has a good program outlined which will include meetings of value not only to industrial personnel people but also to personnel people in other types of business. The program for the event has not been announced, but it is understood that three outstanding speakers will be on hand—one to address the group on a subject of general interest, another to speak on communications, and a third to discuss wage stabilization matters.

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OFFICERS AND DIRECTORS OF J. P. STEVENS & CO., INC., visited Greensboro, N. C., July 12 for a quarterly board of directors meeting and were honored by a reception and luncheon at the Greensboro Country Club, sponsored by the Greensboro Chamber of Commerce and Greensboro Industries, Inc. Shown above are some of the Stevens officials and their hosts at the luncheon. Left to right, are: Stark S. Dillard, chairman of the board of Dillard Paper Co., who presided at the luncheon; W. J. Carter, executive vice-president of Stevens; Robert T. Stevens, chairman of the Stevens firm and guest speaker at the luncheon; Harry Carter, vice-president and director of Stevens; George Eichhorn, president of Greensboro Industries; Andrew Joyner, Jr., vice-president of the Greensboro Chamber of Commerce; and Herman Cone, president and chairman of the board of Cone Mills Corp.

SOUTHERN SOURCES OF SUPPLY for Equipment, Parts, Material, Service

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

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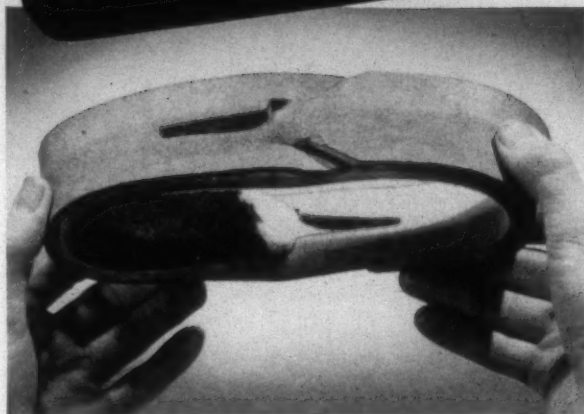
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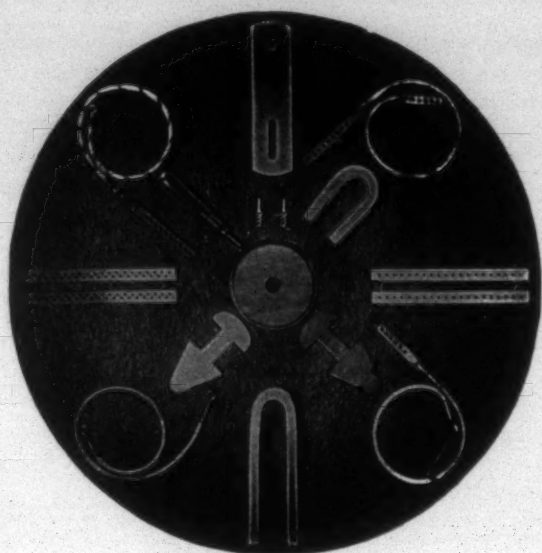
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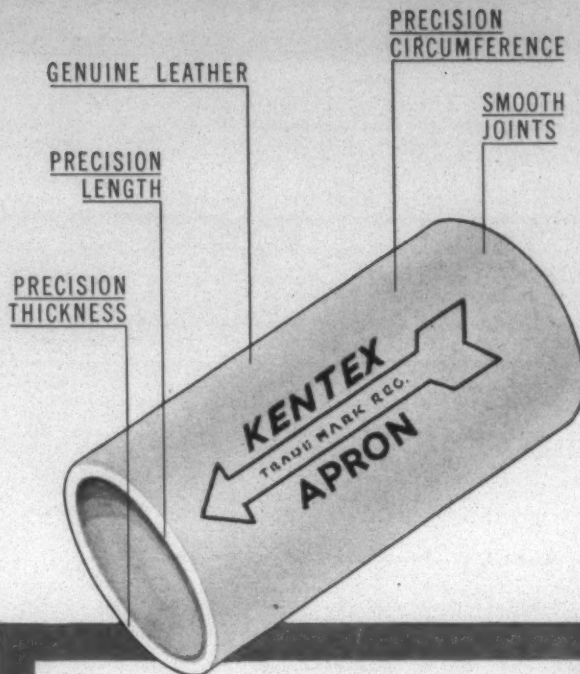
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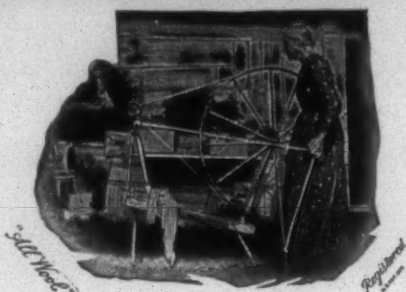
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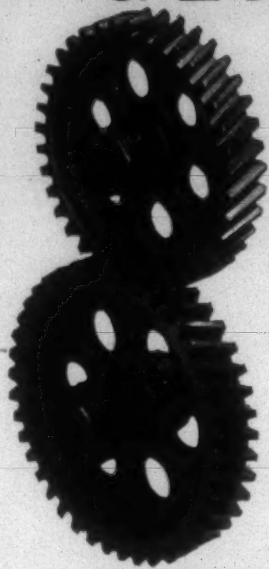
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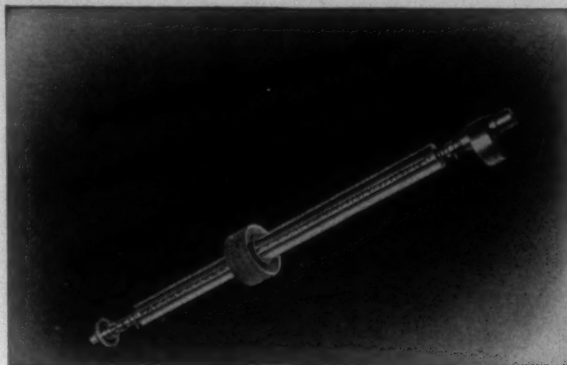
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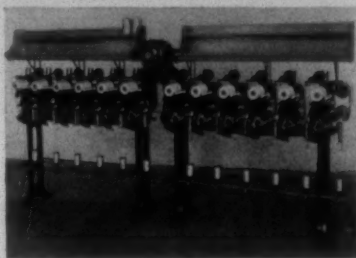
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18"x8" Schumacher-Boye & Emmes L. C. lathe. 5 HP Lima Drive, chuck \$895.00
16"x6" Sidney Q. C. geared head lathe, mtrzd. chuck, misc. tooling \$1,650.00
Peerless Power Hack Saw, 6"x6" cap., mtrzd. \$300.00

18"x14" Monarch Q. C. geared head lathe, mtrzd. chuck, misc. tooling \$3,200.00
No. 1½ Brown & Sharpe milling mach., mtrzd., all geared \$2,050.00
No. 4 Heavy Duty Brown & Sharpe milling mach., all geared, mtrzd. \$2,400.00
Brown & Sharpe Auto. spur and bevel gear cutter, good shape \$325.00
No. 1 Brown & Sharpe wire feed hand screw machine, mtrzd. \$555.00

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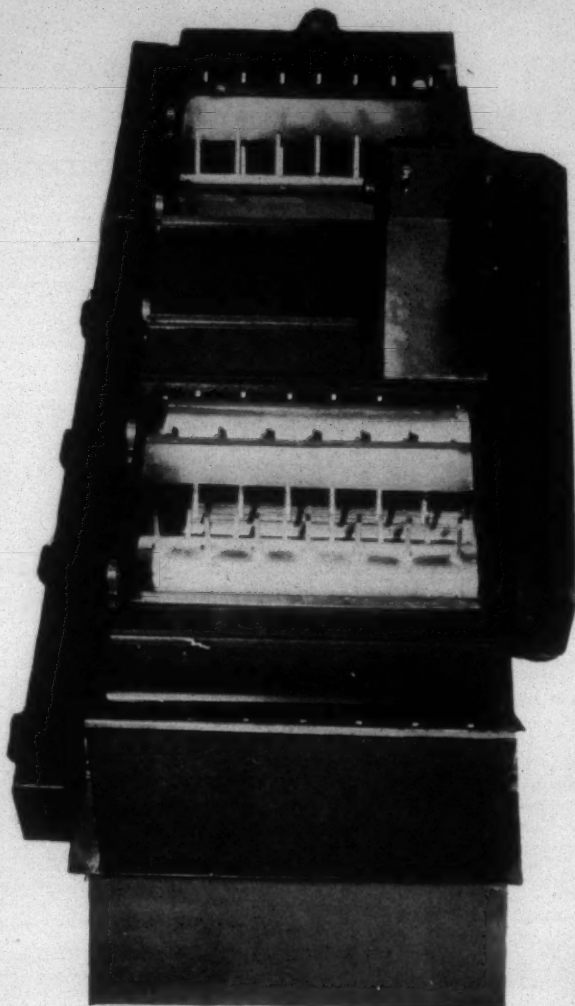
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Before Closing Down

— TEXTILE INDUSTRY HAPPENINGS AS THE MONTH ENDED —

PERSONALS



Ronald C. Forrest, director of the Carded Yarn Association and Alabama Cotton Manufacturers' Association, becomes executive director of the Philadelphia Textile Institute Foundation, effective Sept. 1. Mr. Forrest comes to the

P.T.I. Foundation with years of experience in the administrative fields of the textile industry and is particularly known for his activity in promoting the progress of the various textile associations which he served as an official and executive. Mr. Forrest's appointment with the Philadelphia Textile Institute Foundation will associate him closely with the expansion of school facilities and increasing its service to the industry.

Edward M. Epstein, who has been associated with Du Pont's rayon operations almost from the start 30 years ago, has been appointed manager of a newly created quality control section of the nylon division. Employed as a chemical operator at the Buffalo plant in April, 1922, less than a year after Du Pont began its rayon manufacturing operations, Mr. Epstein has filled many important technical and production posts at plants in Old Hickory, Tenn.; Richmond, Va.; and Buenos Aires. Since November, 1950, he has been technical superintendent at the Old Hickory plant.

H. E. Humphreys, Jr., president of United States Rubber Co., has been elected chairman of the board of directors, effective Sept. 1. He will continue as president. Mr. Humphreys will succeed Herbert E. Smith, chairman and former president, who will retire Aug. 31, after 38 years of service. Mr. Smith will continue as a director and member of the finance committee. . . . The board also elected John W. McGovern, vice-president and general manager of the tire division, a member of the executive committee. Howard N. Hawkes, assistant general manager of the tire division, was elected a vice-president and appointed by Mr. Humphreys as general manager of the tire division to succeed Mr. McGovern. Both Mr. McGovern and Mr. Hawkes will assume their new duties Sept. 1.

F. Sadler Love, secretary and treasurer of the American Cotton Manufacturers Institute, has been made president of the Charlotte, N. C., chapter of the Quartermaster Association succeeding Lt. Col. Frederic Dennis, former commander of the Charlotte Quartermaster Depot, who has been transferred to another post. . . . John L. Morgan, Jr., superintendent of the Stanley Mills Division of J. P. Stevens & Co., was named

second vice-president of the Charlotte chapter of the Quartermaster Association.

V. A. Ballard has been appointed superintendent of the Gayle Plant of Springs Cotton Mills at Chester, S. C., succeeding E. O. Bishop, who is on sick leave. Mr. Ballard formerly was assistant to the manager of the Lancaster, S. C., plant of Springs.

Ronald W. Boling of Hendersonville, N. C., has been named administrative assistant to the technical vice-president of American Enka Corp., Enka, N. C. He succeeds Francis M. Gilman, who was appointed plant director of industrial relations.

George F. Lattimore, secretary and treasurer of Park Yarn Mills Co., Kings Mountain, N. C., is recuperating following a minor operation Aug. 2 at Charlotte (N. C.) Memorial Hospital.

Ewalt Maurushat has been appointed sales engineer for the New England district for the Hyatt Bearings Division of General Motors Corp. He spent the past six years in the Southern states where he principally concentrated on the application of Hyatt roller bearings to all types of textile machinery.

Roy W. Freeman and James T. Emerson have joined the sales engineering staff of Minneapolis-Honeywell Regulator Co. Mr. Freeman will work out of Atlanta, Ga., and Mr. Emerson out of Greenville, S. C. Both recently completed a comprehensive course in industrial instrument maintenance and repair.

Roy G. Hemminghaus has been named plant manager of the nylon plant now under construction by Chemstrand Corp. at Pensacola, Fla. Mr. Hemminghaus recently completed 20 years of service with Monsanto Chemical Co., a co-owner of Chemstrand, where his most recent position was general manufacturing superintendent of Monsanto's John F. Queeny plant in St. Louis, Mo. . . . Dr. Frank J. Soday has been named by Chemstrand to direct research and development of its synthetic fibers, including the new acrylic fiber, Acrilan. Dr. Soday's laboratories will be situated at the company's headquarters in Decatur, Ala., where a plant is under construction. . . . R. W. Sudhoff, formerly with Monsanto, has been appointed associate director of development for Chemstrand, and will make his headquarters at Decatur, Ala.

J. D. Erwin, who has retired as overseer of the cloth room at Pepperell Mfg. Co., Rome, Ga., a post he held for more than 40 years, was complimented recently at a dinner given in his honor. He was presented an engraved wrist watch. . . . James W. Jordan, formerly assistant overseer of the slashing department at Pepperell, has been

elevated to overseer of the department replacing the late Broadus W. Moak.

Ian Walker, formerly associated with the James W. Cox textile engineering firm, has joined New Braunfels (Tex.) Textile Mills, Inc., as assistant superintendent.

Frank H. Griffin, vice-president and technical director of American Viscose Corp., has retired from the company after 33 years. He will continue to serve as a director.

Wayne Hempstead, general manager of Martha Mills at Thomaston, Ga., and Mrs. Hempstead were on a tour of England, France and Switzerland during the month of August.

W. M. Field, prominent textile official of Charlotte, N. C., has been appointed as North Carolina chairman of the Citizens Committee for the Hoover Report.

Rex T. Willard and Cecil Wright have joined Reliance Electric & Engineering Co., Cleveland, Ohio. Mr. Willard, an application engineer, has been assigned to the company's sales office in Atlanta, Ga. Mr. Willard, a pilot in the U. S. Army Air Force during World War II, was graduated from North Carolina State College with a degree of B.E.E. in 1949. Mr. Wright, a field service engineer, has been attached to the company's Charlotte, N. C., office. He formerly was an electrical engineer at West Point Mfg. Co., Langdale, Ala. He received his B.S. degree in electrical engineering at Alabama Polytechnic Institute.

OBITUARIES

Dr. Robert L. Caveness, 84, president and chairman of the board of Enterprise Mfg. Co., Coleridge, N. C., died Aug. 14 at his home in Coleridge. Dr. Caveness, a country doctor, was one of the organizers of Enterprise Mfg. Co. in 1904. Three daughters survive.

Elwin P. Davidson, assistant technical manager of the organic chemical division office in Charlotte, N. C., of E. I. du Pont de Nemours & Co., Inc., died Aug. 17 at his beach residence near Myrtle Beach, S. C. Mr. Davidson had been associated with Du Pont for more than 30 years. Surviving are his wife, a son and a sister.

Lawrence E. Gilbert, 45, a field representative of the Sanforized Division of Cluett, Peabody & Co., Inc., died Aug. 4 at his home in Watervliet, N. Y. Surviving are his wife, three daughters, a son, a sister and two brothers.

Clarence W. Whitley, who retired about a year ago after serving for 30 years with Osage Mfg. Co., Bessemer City, N. C., died Aug. 9. At the time of his retirement Mr. Whitley was assistant superintendent

BEFORE CLOSING DOWN

and superintendent of weaving. Surviving are his wife, six daughters, two sons, a brother and three sisters.

MILL NEWS

MOBILE, ALA.—Papers of incorporation for Courtaulds (Alabama), Inc., were filed here recently. Authorized capitalization is \$1,000,000. A plant for the production of viscose rayon staple, to cost about \$10,000,000, is to be constructed at a site about 20 miles north of Mobile. The plant will have an initial capacity of 50,000,000 pounds of staple, it is reported. Construction is expected to start immediately.

SEVIER, N. C.—Work is progressing satisfactorily on the grading of the area for the finishing plant which is to be built here by American Thread Co. Grading for the principal building has been completed and also the grading of the area which is to be a large lake, which is to be used as a reservoir. A new hard surfaced road is being built to the plant from a point about 200 yards east of the intersection of the Lenville and the Little Switzerland roads. If steel is made available the construction of the building should proceed rapidly.

GREENSBORO, N. C.—Negotiations are reported under way for a public offering of about 400,000 shares of Cone Mills Corp. stock, said to be worth about \$12,000,000. Moses H. Cone Memorial Hospital is the largest stockholder in the firm, and members of the Cone family have substantial holdings in the company.

DILLON, S. C.—Three suggested plans for Chapter X reorganization of Carolina Mills, Inc., have been filed in Federal Court at Charleston, S. C., for continued operation of the plant, which employs about 1,500 persons. A hearing to consider the proposals is to be held Oct. 8 in Federal Court at Charleston. The plant utilizes about 33,840 spindles in the production of 20s and 40s single and two-ply carded and combed cotton yarns.

LANETT, ALA.—Utilities in Lanett, formerly owned by the West Point (Ga.) Mfg. Co. and Lanett Bleachery & Dye Works, valued at over \$750,000, have been donated by the two companies to the City of Lanett. Included in the utilities donated were the electric, sewage and water distribution systems of the city, a 45-unit school building, a modern cafeteria and a block of land occupied by the school property.

ATHENS, GA.—Legal steps have been taken to bring the Athens Mfg. Co. fully into the operating organization of the Chicopee (Ga.) Mfg. Corp., it has been announced by G. O. Lienhard, president of Chicopee. By this action, which was merely a technical dissolution of the Athens Mfg. Co., the Athens plant becomes a division of the Chicopee Mfg. Corp. and will henceforth be known by that name. It was pointed out by D. D. Quillian, manager, that the legal change will have no effect on the operations of the Athens mill, which will continue to operate on a full-scale plan in the production of goods for Chicopee.

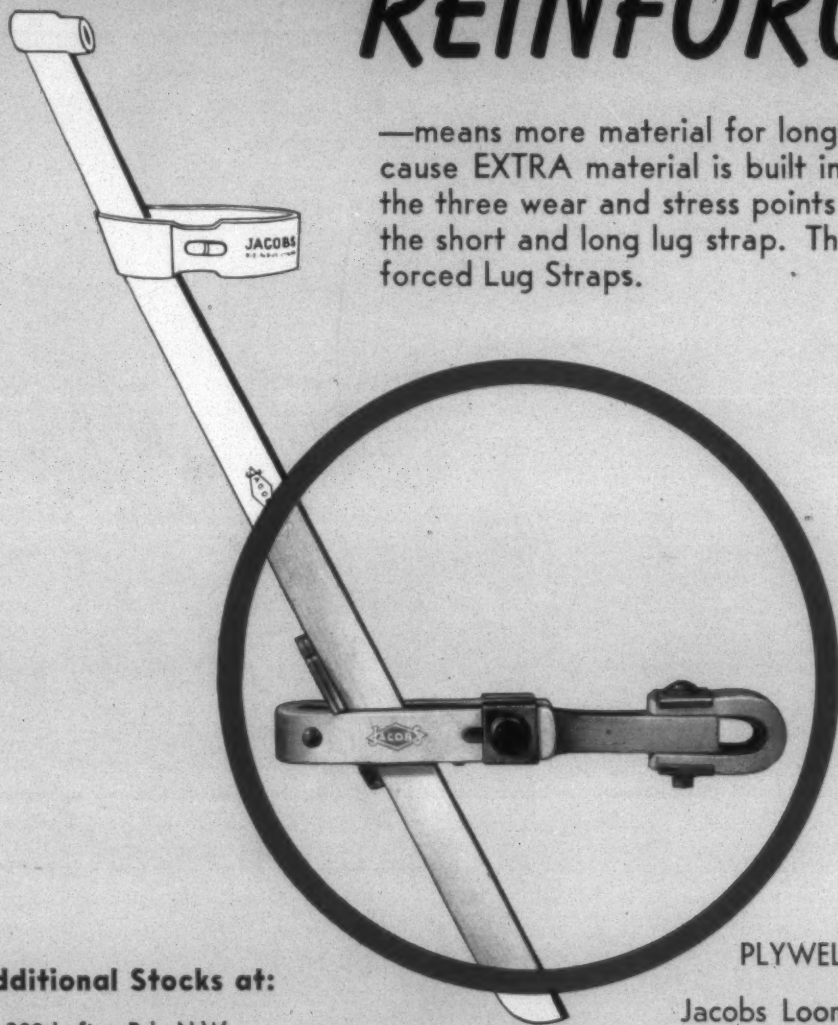
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